SBE Re-Elects Wayne Pecena as President

The results of the 2020 SBE election for the national board of directors are in. Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE, was reelected as the society’s president. Pecena is the associate director of educational broadcast services at Texas A&M University, which operates public broadcast stations KAMU FM & TV. He is a member of SBE Chapter 99 in College Station, TX.

Regarding the election, President Pecena said, “I look to my second term as our industry and our personal lives have experienced change and challenge like never before. I want to ensure the Society brings a sense of normalcy to our members. This uniformity is accomplished through our professional development, continuing education, certification and frequency coordination programs, while making the right decisions for change in the future to insure continued value to our members.”

Others serving one-year terms as officers, which began on Sept. 23, are:
• Vice President: Andrea Cummis, CBT, CTO; Chapter 15 New York; W. Orange, NJ
• Secretary: Kevin Trueblood, CBRE, CBNT; Chapter 90 SW Fla.; Ft. Myers, FL
• Treasurer: Ted Hand, CPBE, 8-VSB, AMD, DRB; Chapter 45 Charlotte; Charlotte, NC

Serving two-year terms on the board of directors, which also began Sept. 23 are:
• Stephen Brown, CPBE, CBNT; Chapter 80 Fox Valley; Appleton, WI
• Roswell Clark, CPBE, CBNT; Chapter 39 Tampa Bay Area; Clearwater, FL
• Kirk Harnack, CBRE, CBNE; Chapter 103 Nashville; Nashville, TN
• Thomas McGinley, CPBE, AMD, CBNT; Chapter 16 Seattle; Missoula, MT
• Shane Toven, CSR, CBNT; Chapter 43 Sacramento; Antelope, CA
• Fred Willard, CPBE, 8-VSB, CBNT; Chapter 37 District of Columbia; Washington, DC

The national board of directors of the SBE is responsible for the development of policy and determines the programs and services the society provides to its approximately 5,000 members.

Recap of the Virtual SBE Annual Meeting and Awards Program

The Society of Broadcast Engineers 56th SBE National Meeting was originally to be held in Syracuse, NY, on Sept. 22 and 23, but like most other events this year, was moved to a virtual event because of the COVID-19 pandemic. Emanating from the broadcast studios of Texas A&M University’s KAMU-TV, and hosted by SBE President Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE, the SBE combined and condensed the annual SBE Membership Meeting and National Awards Dinner into a fast-moving, 90-minute program. It was broadcast on the SBE YouTube channel.

The SBE National Meeting was to be held in conjunction with the SBE Chapter 22 Broadcast & Technology Expo, a regional exposition and educational event held in Syracuse. Chapter 22 announced in August that it was cancelling the event due to restrictions imposed by the state of New York as a health precaution.

The YouTube broadcast began with the...
Before the sun sets on REPACK, have you...

- Installed and verified your new equipment?
- Prepared for an FCC audit?
- Finalized your wrap-up documents and testing?

QComm field crews and QForce pilots are ready to help.

Call today and let us navigate the red tape to get you from plans to profits before time runs out.

QComm’s C-BAND division is ready to drive this transition forward and assist broadcasters maximize 5G opportunities.

Meet Mark Fehlig, QComm’s new and accomplished Senior Digital Engineer, Satellite Systems. Mark’s unparalleled credentials and on-the-job ‘know how’ will guide you through the jungle of rules and regulations.

Lump sum? Phased payment schedule? Whichever you choose, call Mark and ask how the C-BAND division will amplify your benefits.

770-363-5974
Mark Fehlig, P.E., CPBE
By Joe Snelson, CPBE, 8-VSB
Chair, SBE Executive Director Search Committee

In the last edition of The Signal, I presented an outline of the process that the SBE Executive Director Search Committee would take in finding our next executive director. I will present in this edition where we are in that process. Of course, by the time you read this we will be even further down the road and possibly have already made an announcement of who the replacement for current Executive Director John Poray might be.

The Committee received around 30 applications for the position by the end of June. This large number was culled down to six by the process of each committee member submitting his or her ranking for each applicant. Those six individuals went through an initial interview with the Committee using video conferencing to narrow it down from six to four. Those four applicants participated in another, lengthier interview to narrow it down further to the top three. The next step after that was to schedule face-to-face interviews with the top three finalists. At the time of this writing, it is unknown what we might face in the future due to the COVID-19 virus pandemic. The purpose of the face-to-face interviews is to narrow the top three down to one finalist and an alternate. The name of the finalist will be presented to the SBE Board for approval. If approved, an announcement of the new executive director will be made public soon after that Board meeting in late September.

Of course, by the end of September, it’s possible that by the time you read this an announcement of the new executive director may have been made. Nevertheless, I thought it important to give you some details on how the search for a new executive director was conducted.

The Committee received around 30 applications for the position by the end of June. This large number was culled down to six by the process of each committee member submitting his or her ranking for each applicant. Those six individuals went through an initial interview with the Committee using video conferencing to narrow it down from six to four. Those four applicants participated in another, lengthier interview to narrow it down further to the top three. The next step after that was to schedule face-to-face interviews with the top three finalists. At the time of this writing, it is unknown what we might face in conducting those interviews due to possible governmental restrictions that could be in place due to the COVID-19 virus pandemic. The purpose of the face-to-face interviews is to narrow the top three down to one finalist and an alternate. The name of the finalist will be presented to the SBE Board for approval. If approved, an announcement of the new executive director will be made public soon after that Board meeting in late September.

Certification Question
An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Update from the SBE Executive Director Search Committee

By Joe Snelson, CPBE, 8-VSB
Chair, SBE Executive Director Search Committee

In the last edition of The Signal, I presented an outline of the process that the SBE Executive Director Search Committee would take in finding our next executive director. I will present in this edition where we are in that process. Of course, by the time you read this we will be even further down the road and possibly have already made an announcement of who the replacement for current Executive Director John Poray might be.

The Committee received around 30 applications for the position by the end of June. This large number was culled down to six by the process of each committee member submitting his or her ranking for each applicant. Those six individuals went through an initial interview with the Committee using video conferencing to narrow it down from six to four. Those four applicants participated in another, lengthier interview to narrow it down further to the top three. The next step after that was to schedule face-to-face interviews with the top three finalists. At the time of this writing, it is unknown what we might face in conducting those interviews due to possible governmental restrictions that could be in place due to the COVID-19 virus pandemic. The purpose of the face-to-face interviews is to narrow the top three down to one finalist and an alternate. The name of the finalist will be presented to the SBE Board for approval. If approved, an announcement of the new executive director will be made public soon after that Board meeting in late September.

Of course, by the end of September, it's possible that by the time you read this an announcement of the new executive director may have been made. Nevertheless, I thought it important to give you some details on how the search for a new executive director was conducted.

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False

Certification Question

An FCC inspector needs to make an appointment with a station to conduct an inspection of the station.

A. True
B. False
Looking Ahead to 2021

It may be too soon to look to 2021, but I expect many of you are like me and ready for 2020 to come to a conclusion. A year ago, I became your Society president and wrote in my first president’s column of a productive year ahead for the industry and your society. I am once again honored and humbled to have been reelected for my second term. It was a quick 12 months, and again it’s time to look ahead. The pandemic brought change at a pace that never could be envisioned as well as uncertain times ahead.

Zoom (or your favorite media conferencing platform) has become a routine part of our daily schedule, whether conducting our day jobs or keeping in touch with our industry. With all industry gatherings canceled or postponed, your society has conducted an Executive Committee meeting, two Board of Directors meetings and just wrapped up the annual membership meeting virtually. I have a love-hate relationship with the media conferencing technology. I have enjoyed the numerous online events that I have been involved in as a presenter and far more as a participant. I look forward to when we can again gather face-to-face for a chapter meeting, a regional conference or a national event. For now, the technology at hand serves as the best option available, but maybe not as the long-term substitute. This is an aspect where the future might not look like the past we have known. I suggest the future might include a balance between traditional in-person conferences and ongoing in-depth online technology presentations throughout the year.

Regardless of the challenges and obstacles presented this year, your society has been busy and maintaining a sense of normal. I look to the continuing education, certification and frequency coordination programs as cornerstones of the SBE. These programs continue as always. Many organizations scrambled to develop online events as in-person events were canceled, while it was business as usual at the SBE where online events have been a normal offering for some time. The webinars and monthly WEBxtra Chapter of the web meetings headline the offerings. Webinar participation has seen record enrollment with the first six months of this year surpassing all of 2019. New webinars have been added monthly to the library of now more than 90 topics. Remember, all Webinars by SBE are free with your MemberPlus membership option. Certification exams continue to be conducted, although maybe in a little different setting to comply with local social distancing requirements.

Continuing education, certification and frequency coordination programs often receive the majority of the society limelight. These are important for sure, but many other programs are alive and well. The SBE Mentor Program continues and the Ennes Foundation Trust continues to fund scholarships with record financial support this year. Scholarships were awarded this year to five budding engineers.

The SBE has continued to provide comments and input to the Federal Communications Commission on a variety of issues of interest to the broadcast engineer and the industry. The most recent comments were focused on the C-Band satellite spectrum repack. The SBE suggested a 30-day extension for reimbursement requests by stations affected by the C-Band repack. The FCC granted a 14-day extension. While our efforts don’t always fully achieve what the society sought, an impact was achieved. The additional time allowed broadcast station engineers and management to make an informed decision. SBE General Counsel Chris Imlay best summarized the motion outcome; “It seems clear the FCC has come to respect comments from the SBE based upon practical experience and engineering expertise” as the SBE motion was the catalyst for the FCC extension granted.

Due to the production lead times associated with a print publication such as The Signal, the new executive director of the SBE may have been announced before you read this column. Joe Snelson, who chaired the Executive Director Search Committee, outlines the search process in this issue of The Signal. A special thanks to Joe for his leadership of the committee and to your fellow SBE members who served on the committee. Work of this committee resulted in one of the most important actions of the society as we look to the future and prepare to congratulate John Poray upon his retirement in December recognizing his 28 years of service to the SBE.

A sincere thank you goes to the dedicated SBE staff members as the national office continues to keep the business side of your association moving right along while observing the Indiana and Indianapolis guidelines. The phone continues to be answered, the mail opened, certification exams distributed and inquiries responded to while taking the necessary precautions for the staff to stay safe and remain healthy.

As we look to 2021 and seek to get back to normal, the new normal is yet to be defined and is likely a work in progress for some time to come. I personally want to know your suggestions, comments and concerns. Your feedback is essential to our collaborative effort as we all seek the “new normal” ahead. Please reach out to me at wpecena@sbe.org or by phone at 979-845-5662 for a more personal exchange. Always, a sincere thank you to those I have heard from. In the meantime, stay safe and stay healthy!
The March to ATSC 3.0 Continues - Ready or Not

For the past several years, nothing has captivated the thoughts of television broadcasters like what they’ll soon be allowed to unleash on the viewing public as we approach the cusp of widespread deployment of ATSC 3.0. The additional opportunities to distribute data at a fraction of the cost of competing technologies promises to provide new revenue streams and opportunities never imagined before.

At the same time, broadcast technical staff have never been presented with more complex architecture to plan, configure and execute. The decisions to be made over the next few months will determine whether facilities maximize their potential or just “mark time” while competition reaps the benefits.

Speaking of competition, that term takes on a different perspective given benefits of creating market partnerships to efficiently use market spectrum to deploy ATSC 3.0 in parallel with legacy digital services.

The folks at Pearl TV have demonstrated workable solutions in their Phoenix Model Market initiative, and thanks to 2020 James C. Wulliman SBE Educator of the Year coreipient Fred Baumgartner, we recently received a copy of the Host Station Manual to peruse.

I mentioned to Dave Folsom of Pearl how well thought out the manual was, and I felt the frequently asked questions would prove an excellent resource to help focus non-technical folks to technical decisions that need to occur for successful implementation. He graciously approved sharing a sampling of those here:

**Will a new transmitter be required if I am operating a NextGen TV Host station?**

It will depend on several factors. Many current transmitters in use with ATSC-1 are completely capable of transmitting the NextGen TV signal. However, NextGen TV’s COFDM transmission system can provide transparent power demands beyond what is required by equivalent legacy ATSC-1 average transmission power. This is referred to as a high peak to average power ratio.

It is a characteristic of COFDM transmission. Also, the broadcaster may choose to add additional power to provide for a vertical polarized transmission component that will become important in reaching a mobile audience. Many legacy transmitters already have enough power overhead to handle these peaks and additional power requirements. However, each circumstance is different so these factors must be considered when designing your system.

**What is Dialogue Enhancement in NextGen TV?**

The Dolby AC-4 audio system used in NextGen TV in North America can create and provide an audio dialogue enhancement feature. This feature allows viewers that have receivers with this selection capability to improve the ability of the listener to understand the dialogue within a program source. It does not just increase the dialogue level; it also changes the characteristics of the dialogue within the program to make it easier to discern by the viewer. This feature was not added just for the hearing-impaired community. It was added to enhance the viewer experience in a wide range of viewing/listening circumstances where background noise in the program (as in a sporting event) or at the viewer’s location can mask the dialogue intelligibility. This feature has proven to be very popular in early tests by a wide range of test audience members.

If you’re going to be involved with implementation of ATSC 3.0 in your market, or just want to get a better grasp of the process, I encourage you to download a copy of the Host Station Manual.

**Does a broadcaster need a new exciter (modulator) if hosting a NextGen TV Host station?**

Legacy ATSC-1 exciters/modulators generally are not compatible with current NextGen TV transmission unless they have been purchased in the last year or two. More recent exciters are software-based and can run software to create a legacy ATSC-1 or alternatively a NextGen TV transmission often with the addition of a license key.

**Why are there so many transmission parameter selections available in NextGen TV?**

In designing the ATSC-3 NextGen TV system, the designers were aware of the wide range of transmission characteristics that need to be provided by a modern television transmission system. This variety of possible parameters allow flexible use of the service from in-home, portable, mobile, in-vehicle and inside large building requirements. All the different transmission parameters provide capabilities from more robust mobile or inside building transmission to less robust, with wider bandwidth capabilities. NextGen TV also allows for transmission of multiple modulation and coding parameters at the same time which provides the flexibility to transmit to multiple levels of service bandwidth or signal robustness within a single transmission.

**Should you consider the use of a Broadcaster Application and what is the Application Framework?**

NextGen TV has the capability of automatically downloading and running a broadcaster-provided application on the viewer’s receiver. This application can be simple and just provide a familiar receiver control interface to the viewer or it can provide a wide range of enhanced contents such as a sophisticated guide with deep links to enhance the viewer experience. A (common) Application Framework is a means by which much of the underlying software code that makes this experience possible is shared between broadcasters to provide faster app loading between a service change. It also provides a common and familiar look and feel to viewer-facing broadcaster apps.

For more information on any SBE education program, contact Education Director Cathy Orosz: corosz@sbe.org or 317-846-9000.
When safe practices dictate you maintain distance and avoid indoor public gatherings, how do you conduct an in-person meeting to administer an SBE certification exam? The SBE continues to offer SBE certification exams, but they are being held with some modifications, as you can imagine. When the World Health Organization declared COVID-19 a pandemic in March, we all wondered what it would mean for us individually and for our regular day-to-day procedures. In this vein, the SBE National Certification Committee had to consider what that meant for our certification exams.

As you likely know, SBE certification exams are held in-person with local certification chairs or designated special proctors. Our first exam session after the pandemic declaration was in June. At that time, some states had begun to lift some of their rules on social distancing and open some places of business. We made it clear to each examinee and proctor that first and foremost they needed to be comfortable and safe in the exam process. This took different forms at various locations. With most chapters administering an exam to one or two people, each situation was different.

A few chapters still had stringent regulations and they opted to reschedule their exam. In these cases, the retake fee was waived. One chapter had a proctor who was at high-risk of infection. The SBE found an alternate proctor for that exam. Another chapter had its examinee take the exam outside. In one case, an examinee had the entire building to himself, so social distancing wasn’t a problem.

During all this, some have asked why SBE exams are not administered online. That sounds like a quick and easy concept, but in reality, there are many factors to consider. These include effective proctoring, maintaining the integrity of the questions and question pool, and the cost of the method itself. We also value the time and work our volunteers give to the SBE and the certification program. That is a foundation of our organization. We don’t want to eliminate them from our process.

All this said, the Certification Committee continues to evaluate new methods and more flexible exam options. If you want to take an SBE certification exam, but have concerns about the process, we’re willing to work with you on a mutually agreeable solution. As always, let us know if you have questions or concerns.

SBE Certification Director Megan Clappe is available to help.

CQ Answer from page 3

The answer is B (False)

The Commission has no means of determining whether a station is being operated as licensed except through immediate on-the-spot inspection. To establish the amount of operating power of a station, the input power of the last radio stage of the transmitter must be actually measured with test equipment. To delay an inspection for the convenience of a licensee would allow the licensee time in which to modify or restore the transmitter to its licensed condition, thus permitting the licensee to avoid detection. This same theory also applies in the case of whether a station is operating with an unapproved type of transmitter.

Earn Your Diploma at Home!

Cleveland Institute of Electronics

Distance learning programs in electronics and computer technology!

Programs offered:
- Broadcast Engineering
- Electronics Tech with FCC
- Electronics Communications
- Industrial Electronics PLC
- Wireless
- Robotics and more!

www.cie-wc.edu
Course descriptions & tuition prices. Request a FREE Course Catalog!

www.ciebookstore.com
Learn iPhone Repair, Video Production, PC Repair & more! DVDs, labs & tools.
Or call 1-800-243-6446
Registration Certificate 70-11-0002H

1776 E. 17th, Cleveland, OH 44114
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.

Certification Achievements

### LIFE CERTIFICATION

Patrick Caffrey, Cheyenne, WY - Chapter 129
Samuel Cox, Escondido, CA - Chapter 36
Andres Diaz, Guaynabo, PR - Chapter 142
Kenneth Drewes, Des Moines, IA - Chapter 109

### JUNE EXAMS

Certified Senior Radio Operator (CSRO)
Shane Toven, Antelope, CA - Chapter 43
Certified Broadcast Networking Engineer (CBNE)
Jonathan Holton, North Richland Hills, TX - Chapter 67

### AUGUST EXAMS

Certified Broadcast Radio Engineer (CBRE)
Rick Ruhl, Rialto, CA - Chapter 131
Certified Television Operator (CTO)
Fernando Silva, Clifton, NJ - Chapter 15

### SBE CERTIFIED SCHOOL COURSE COMPLETION

Alan Jurison, Syracuse, NY - Chapter 22
Kevin Tubbs, Kirkville, NY - Chapter 22
Daniel Paixao, Meridian, ID - Chapter 115

### CERTIFIED BY LICENSE

Sylvester Carino, Antelope, CA
Ryan Glazar, Flagstaff, AZ - Chapter 9
Alex Mackensen, Hurricane, WV
Certified Broadcast Technician (CBT)
Andrew Christian, FPO, AE

### CERTIFIED RADIO OPERATOR (CRO)

Certified Broadcast Technician (CBT)
Mike Feit, Glendale, AZ - Chapter 9
Certified Broadcast Television Engineer (CTBE)
Andrew Kennedy, Fitchburg, WI - Chapter 24

### CERTIFIED TELEVISION OPERATOR (CTO)

Certified Broadcast Technician (CBT)
Eva Hern, Kemah, TX - Chapter 105
Certified Broadcast Networking Engineer (CBNE)
Lawrence Enroth, Joshua Tree, CA - Chapter 131

### 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)
Jon Hardee, Pittsboro, NC - Chapter 93
Certified Professional Broadcast Engineer (CPBE) AM Directional Specialist (AMD)
Robert Bowe, Phoenix, AZ - Chapter 9

### SBE WEBxtra

Tune in to the Chapter of the Web
The SBE WEBxtra is usually streamed live on the third Monday of the month. Also watch the replay on our YouTube Channel.

Got your SBE Certification pin? [sbe.org/pins](http://sbe.org/pins)

Want to know more or participate?
[Want to be a mentor or a mentee?](#)

The SBE Mentor Program pairs an experienced broadcast engineer with someone who is a newer broadcast or multimedia technology professional. The SBE Mentor Program provides a means for SBE members to share knowledge and experience.

Want to know more or participate?
[sbe.org/mentor](http://sbe.org/mentor)
Annual Meeting portion of the program. Opening remarks were delivered from President Pecena, who reviewed the accomplishments of the SBE during the past very challenging year, and provided a look ahead to what the SBE plans to accomplish in 2021. The first half hour of the program was highlighted by the induction of the SBE national officers and six of the 12 national directors (see SBE election results on page 1).

Recognized in that portion of the program was the winner of this year’s SBE Membership Drive, Paul Easter, CPBE, CBNT, of Rosenberg, TX, Chapter 105, Houston. Dielectric was recognized for 25 years of support of the SBE through its Sustaining Membership. This year’s five Ennes Scholarship winners, and winners of Chapter Engineer of the Year awards by seven SBE chapters were also recognized. Official reports from SBE Secretary Kevin Trueblood, CBRE, CBNT, and Treasurer Ted Hand, CPBE, 8-VSB, AMD, DRB, were delivered, and program updates were made by Steve Brown, CPBE, CBNT, Membership; Ralph Hogan, CPBE, DRB, CBNE, Certification; and Geary Morrill, CPBE, CBNE, Education; who chair those committees.

SBE National Awards

The program then shifted to the presentation of the annual SBE National Awards. These included awards to chapters, individual members and one Sustaining Member company. Chapter 115, Southern Idaho, and Chapter 131, Inland Empire, CA, were recognized for having the greatest percentage of SBE certified members. Chapter 106, Florida Panhandle, and Chapter 103, Nashville, were recognized for having the greatest percentage of membership growth. Awards for the highest percentage of member attendance at chapter meetings went to Chapter 112, Western Wisconsin, and Chapter 69, Alamo Area, TX. Chapter 37 of Washington, DC, was recognized with the award for Best Regional Educational Event for its NextGen TV Summit. SBE Sustaining Member company MultiCAM Systems received the SBE Technology Award for its AirBridge product.

A special surprise presentation of the John H. Battison Award for Lifetime Achievement was made to Mark Persons, CPBE, AMD, CBNT, of Brainerd, MN, Chapter 17, Twin Cities. Persons is retired from a long broadcasting career, most of it spent operating his own contract engineering firm.

There were two winners this year of the James C. Wulliman SBE Educator of the Year Award. Fred C. Baumgartner, CPBE, CBNT, of Elizabeth, CO, Chapter 48, Denver, was recognized for his work organizing and presenting the SBE NextGen TV tutorial that took place as part of the PBS TechCon program in 2019. Roland Robinson, CBTE, CTO, CBNT, of Tacoma, WA, Chapter 16, Seattle, was recognized for his work as an instructor at Bates Technical College, an SBE Certified School.

The Robert L. Flanders SBE Engineer of the Year Award was presented to Robert J. (RJ) Russell, CPBE. Russell operates Technical Broadcast Solutions, Inc., a broadcast technology consulting firm, and also serves as the SBE Frequency Coordination Manager. He has been instrumental in the SBE work to coordinate use of broadcast auxiliary spectrum with co-user, the U.S. Department of Defense.

The final awards of the evening were to the two members elevated to the SBE Fellow rank of membership in 2020. Ralph Beaver, CBT, of Tampa, FL, Chapter 39, Tampa Bay, was the first recipient. Beaver operates Media Alert and has served for the past ten years as the manager of the event frequency coordination program of the National Football League. James Leifer, CPBE, of Tewksbury, MA, Chapter 11, Boston, is senior manager of broadcast operations for American Tower Corporation. He is immediate past president of the SBE, a member of the SBE Executive Committee, and served this past year as chair of the SBE Nominations Committee.

Our thanks to the SBE Sustaining Members that sponsored the SBE Annual Membership Meeting and National Awards Presentation webcast. Please consider them when making your broadcast equipment and services purchase decisions.
The Ennes Educational Foundation Trust has awarded five scholarships for 2020. The recipients were chosen from applications received by July 1, 2020, from the previous 12 months.

The Harold E. Ennes Scholarship, Robert D. Greenberg Scholarship, John H. Battison Founder’s Scholarship and newly created Gino Ricciardelli Scholarship are awarded to individuals interested in continuing or beginning their education in broadcast engineering and technology. The Youth Scholarship is specifically for a graduating high school senior interested in broadcast engineering as a career.

Each scholarship awarded this year is for $2,500.

This year the Harold E. Ennes Scholarship recipient is Chris Gamelin of Middletown, CT. His goals in broadcasting continue to evolve as he feeds his hunger to learn. His professional work began with an internship at WQUN-AM. Since then, he has worked for iHeartRadio and Entercom Communications, and is now a maintenance technician for WFSB-TV.

Receiving the Robert D. Greenberg Scholarship is Jon Sanelli of Albertson, NY. He has worked on the engineering and production side in the New York City market at WRHU Radio Hofstra University, in addition to broadcast facilities in the five boroughs and the Tri-state. Jon knows that broadcasting needs technology, but more importantly, it is people that make the industry shine.

The John H. Battison Founder’s Scholarship has been awarded to Ismail Otu, CRO, CTO, originally from the Bronx, but now living in Charlotte, NC. He graduated from The Broadcasting Production Technology Program at Central Piedmont Community College (CPCC) in Charlotte. Ismail plays several critical roles during live events and concerts for CPCC’s performing arts and events facilities. He plans to attend The Cleveland Institute of Electronics and major in Broadcast Engineering/Wireless Communication Electronics to pursue a career in broadcast operations.

The Gino Ricciardelli Scholarship, created earlier this year in recognition of Gino Ricciardelli, an SBE Charter, Life and Fellow member who died in 2018, has been awarded to Sadie Levy of New York, NY. She currently attends North­eastern University in Boston, where she is majoring in electrical and computer engineering, with a focus on media production. Sadie graduated from Fiorello H. LaGuardia High School of Music & Art and Performing Arts. While in high school, Sadie was awarded scholarships to study digital electronics in pre-college programs at both The Cooper Union and New York University. Last summer, Sadie completed a media internship in a New York City government office, and this summer she completed a media/design internship at ATEM NYC.

Receiving the Youth Scholarship is Isaiah Dickson of Brookhaven, PA. Isaiah is entering his freshman year at Cabrini University. He will major in digital communication and social media. His work has been recognized by the Population Media Center and the Scholastic Art and Writing Awards. In his spare time he enjoys filming and editing his own videos, writing poetry, writing music, and live streaming.

SBE President Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE, said, “The SBE has an ongoing focus on education, and the Ennes Scholarships are yet another piece of the overall education effort. We look forward to seeing the great progress of these five budding engineers as they further their education goals with the assistance of the Ennes Educational Foundation Trust.”
6.5 and 7 GHz: Let’s Let the Courts Decide

When we last visited this subject, the FCC had released its Report and Order and Further Notice of Proposed Rulemaking in Docket 18-295, deciding to permit unlicensed 5G Wi-Fi devices and other unlicensed broadband devices in the 1200 megahertz of spectrum in the 5.925-7.125 GHz (6 GHz) band. In the BAS 6425-6525 MHz and 6875-7125 MHz bands, lower powered, indoor-only unlicensed operation would be permitted without any automatic frequency control circuitry required. The combination of lower power (30 dBi EIRP as opposed to 36 dBi for outdoor devices) and indoor operations would, the FCC said, protect licensed services operating on these frequencies from harmful interference.

Not so fast, FCC. A series of requests to stay the effective date of the new rules adopted in this proceeding were filed and promptly denied by the FCC, triggering a series of appeals to the United States Court of Appeals for the District of Columbia Circuit, challenging the fundamental elements of the FCC’s decision and arguing errors in the process. Let’s take a look at a few of these. The Court of Appeals has consolidated these cases, and they are being briefed now.

The first to appeal to the Federal appellate court was APCO, on behalf of the public safety and government licensees in this band. APCO claims that the FCC failed to address the potential impact on public safety communications, as required by the Communications Act of 1934. APCO notes (as did the SBE in its comments in this proceeding) that there is no effective way to prevent consumers from using low-power indoor Wi-Fi devices on balconies, rooftops, in moving vehicles, or anywhere else, and there is no means for licensees suffering interference to quickly require the Wi-Fi devices (assuming they can even be identified) to be shut down. APCO’s stay request during the reconsideration period was based on the likelihood for harm if uncontrolled numbers of these RF devices (estimated to be in the billions) are allowed to flood the market before interference controls can be put in place. Of course, the tech companies oppose APCO’s petition, arguing that there is great consumer demand for additional WiFi capacity, and in any event, interference is unlikely until consumers have purchased a large number of devices.

AT&T and the Edison Electric Institute (EEI) have also appealed the FCC’s decision to the Court of Appeals. EEI’s argument is similar to that of APCO, but it also claims that the FCC relied on computer simulations to support its view that interference is unlikely, without any real-world testing to validate the assumptions underlying the theoretical analyses. AT&T said that while it supports the use of the band for Wi-Fi expansion, any new use must protect incumbent services, which in AT&T’s case includes tens of thousands of microwave links critical to maintaining network infrastructure. An AT&T statement said that the FCC order does not do that. AT&T said that by failing to require that new Wi-Fi devices using this band include smart technology that avoids interference, the FCC order will allow the introduction of devices that can impair, or even knock out, links in the networks that monitor the electric grid, enable first responders to communicate and provide mobile broadband services to millions of Americans, particularly in rural areas. AT&T also made a point that the SBE has made for years: that the FCC has no plan to mitigate the interference when it inevitably occurs. Once millions of these new unlicensed devices are released and in use, it will be impracticable, if not impossible, for the FCC to identify and remove specific devices causing interference.

Continuing the Argument

The Utilities Technology Council (UTC), together with the American Public Power Association and the National Rural Electric Cooperative Association also asked the Court of Appeals to overturn the FCC’s April 2020 decision. The UTC claimed that utilities and public safety entities use the band for mission-critical communications, and that interference from new unlicensed users will likely degrade and diminish these critical communications, potentially threatening life and safety. The UTC said that though the FCC was obligated to act deliberately and carefully, the decision was approved without any proof or evidence that existing critical-infrastructure and public-safety communications will not be disrupted. The UTC claims that existing users of the 6 GHz band offered “study after study demonstrating that the FCC’s plan was flawed and needed to be revised” to determine interference potential.

Perhaps of most direct interest to broadcasters, the NAB filed its own Petition for Review with the D.C. Circuit U.S. Court of Appeals. In it, the NAB notes that the 6 GHz band is currently allocated for licensed use by broadcasters, public safety entities, wireless communications providers and utilities, all of whom use this spectrum to provide important services to the public. It claims that in the Order, the FCC adopted new rules permitting uncoordinated, unlicensed operations across the entire 6 GHz band. The Order, it says, unlawfully fails to protect the large variety of existing licensed users in the band from potential interference arising from this unlicensed use. Television broadcasters in particular have both fixed and mobile operations in the 6 GHz band, which require different protective measures to be adequately insulated from harmful interference. The Order neglects to include proper safeguards for either type of broadcast operation.

The NAB says that the Order is a final agency action that has significant and immediate adverse consequences for the NAB and its members because broadcasters rely on interference-free spectrum in the 6 GHz band for important operations, including those needed for the production of highly-valued news and sports programming. The NAB seeks relief from the Order on the grounds that it: (1) is arbitrary, capricious, and an abuse of discretion; (2) it violates federal law, including, but not limited to, the Constitution, the Administrative Procedure Act, the Communications Act of 1934, as amended, and Commission regulations; and (3) it is otherwise contrary to law.

The FCC is showing no remorse for its decision, and has actively pushed back on these arguments, and it will continue to do so in the Court of Appeals. The FCC’s track record is very good in appellate cases in the Court, and those who appeal an FCC decision are seldom rewarded for their efforts. But in this case, the argument that the FCC’s policy got ahead of the evidence is potentially a compelling argument. The FCC has a bad habit of making policy determinations first and then finding technical justifications for them. We will see how this ends before too long.
SBE Chapters Adjust During These Restrictive Times

Since mid-March of this year, just about the entire world has been enduring — some areas better than others — a pandemic that just wants to linger on. Most health experts point to a time when a vaccine is readily available before our communities will approach getting back to normal. The pandemic has impacted everyday life in ways that everyone recognizes. Social distancing — including separation from loved ones — wearing masks, working from home in many cases, a shortage of cleaning supplies and some food commodities. Some people have been furloughed from their jobs or lost them all together. By late spring, unemployment in the U.S. had reached levels not seen since the Great Depression.

The pandemic has also had its effect in ways that were less predictable. In the first couple of months when lockdowns were widely in place, we saw a reduction in air pollution in major cities as cars sat idle. Family pets received more attention, many people who hadn’t done so previously on a regular basis took walks or rode a bicycle. Many people became much more familiar with their computers, the internet, and Zoom became a household word.

Broadcasters, as they always do in times of disaster, adapted to ensure that news, information and entertainment continued to be provided to the public. Station newsrooms operated with skeleton staffs while on-air talent largely did their shows from their homes. Many still are. Broadcast engineers spent countless hours preparing systems at those homes and adjusted in-studio technology to accommodate the increased remote activity.

For the SBE, many chapters have continued to meet, but have shifted to virtual meetings and some of them have experienced an increase in attendance. That may be due to people having more time to take part, or not having to take the time to travel to the meeting and back, or just a longing to meet with their friends and peers. By my estimate, more than 100 virtual meetings have been conducted by SBE chapters, most using Zoom, over the past six months, bringing hundreds of SBE members together to listen to presentations, share ideas and solve a few problems. Perhaps most importantly, to just spend some time visiting and connecting with friends in the industry.

Be sure to thank your chapter leaders who have taken the time and made the effort to keep your chapter meeting going through these virtual means. Though nothing can take the place of in-person experiences, these virtual meetings have kept us together and provided an avenue to continue to gain knowledge about the technology of the broadcast and media industry. It’s likely that when things do get back to normal — or the new normal — that virtual SBE chapter meetings may continue in tandem with in-person meetings.

Something that has been effected by the reduction of personal contact is the number of new members that have been joining the SBE this year. The number that have joined this year is down about 25 percent over the same period in 2019. We know that the best recruiters of new members are current members. Without a monthly opportunity for an in-person invitation during a chapter meeting to join, fewer membership invitations are being extended. If you have visitors attending your virtual chapter meeting, be sure to extend an invitation to join the SBE. It’s part of being “all-in” when it comes to one’s professional career. They can tap into the many educational resources the SBE provides, the certification program and industry information that helps to keep them up on the latest industry news, trends and developments. They can also share their knowledge, and do their part to contribute to the betterment of the field of broadcast engineering. Borrowing a popular slogan, whether virtual or in-person, we are all better, together.

What’s in a name?

You may have noticed something unusual on the mailing label of your August issue of The Signal. Your first name, address and member number were all correct, but you had been given a different last name. Be assured, all is well with your member information at the SBE.

What happened?

Once printed, the SBE mails The Signal through the mailing services of a mailing house. The SBE provides a member mailing list, and the mailing house then sorts that list before printing the address on each issue. The data sorting is to make the mailing process more efficient. It seems that in the sorting process, the last name field was not kept in place with the other individual data, resulting in the last-name variation.

The issue has been addressed, and extra steps are being taken to assure it doesn’t happen again.

Your member information is fine. There’s no need to contact the SBE office to make a correction. The mix-up occurred outside the SBE records, and only affected the one mailing.
Adapting Plans for a Pandemic

The world continues to deal with the COVID-19 pandemic in various ways, and broadcast facilities are no exception. In the June issue of The Signal, two broadcast engineers shared their individual experiences and business plans to deal with the situation, including the stay-at-home orders issued at that time. While we continue to address the ongoing situation, stations and facilities have implemented and likely updated their plans to ensure ongoing operations and the safety of all employees.

In the 2020 SBE Compensation Survey, conducted during April and May, we asked respondents to indicate if their facilities had any kind of plan in place that was put into use. If a plan existed, we asked what was included in that plan. Specifically, we asked: "Did your station(s) or facility(ies) have an operation plan in place before the COVID-19 pandemic was declared? What did the plan include?"

Figure 1 shows the results of that question. Multiple responses were allowed, and 211 respondents provided a reply.

Likely, it’s not surprising that the two highest responses were providing the ability to work from home (for those who can) and using remote login. That has become commonplace for many businesses. While many other businesses had to quickly learn about web conferencing and remote audio/video connections, broadcasting had the advantage that most already used remote contribution to create the on-air product.

About half the respondents noted that they had an alternate facility for on-air operations and an off-site backup of data and media assets. A complete alternate facility is something of a luxury for some operations. For stations that are part of a larger group, an alternate facility might be easier to provide.

Off-site data backup is a step that every operation should implement. It doesn’t need to be cloud-based or even connected for automatic archiving. A nightly update to physical media with that media being held off-site is better than nothing. In a real crisis, having some data and assets is certainly better than not having any.

The lowest response from the drop-down options was for stations with an alternate location for business operations. As many businesses have likely seen, this probably is not as critical for continuing operations. Creating the on-air product requires more than the simple basics, but remote access can, in many cases, continue the business operation.

Other Options Explained

In addition to the drop-down replies, we also asked for written answers for other preparations. While 10 percent of the respondents provided a reply, there was some interesting insight to the answers.

One of the more detailed replies covered a lot of ground. It also noted some forethought in planning, albeit not likely for a pandemic.

Additional replies noted that the IP connectivity already in place for the on-air operation was extended for those who needed it or could work from home. Others already had remote login and off-site data backup in place.

Some replies noted that existing backup plans had been created for other uses, such as a hurricane or other natural disaster. For some, these plans were adjusted for the pandemic response. Some noted that the updates will be added to their master plans going forward. One reply noted that supplies are always in place for any disaster that would keep employees sheltered in place or quarantined for at least a month, including some medical supplies. That respondent added that his facility is equipped for cooking and personal care needs.

It seems the scale of accommodating the entire staff to operate remotely for distancing was not part of many plans. Several noted that additional equipment had to be acquired (bought or borrowed). It also took some time to put all the pieces in place.

One response included a sentiment that I think we can all appreciate: "It’s been one helluva year."
Member Spotlight: Russ Awe

Member Stats
SBE Member Since: 2019
Chapter: 24 Madison
Employer: PBS Wisconsin/WHA-TV
Position: Engineering Supervisor/Remote Truck Engineer in Charge
Location: Madison, WI
I’m Best Known For: Meeting everyone with a big smile.

What do you value most about your SBE involvement?
A. The comradery. Ask a question at an SBE meeting and someone will probably have an answer or a direction in which to go. The friendships with other engineers is very valuable to me.

What got you started in broadcast engineering?
A. It started in middle school when I was asked to record basketball games for the coaches to review. Add to that, I’ve always had a curious mind. From there I received an associate degree from Chippewa Valley Technical College and started working at the local cable access channel, where I had to know how to do everything. I also started at WEAU-TV in Eau Claire as a part-time camera operator, then was hired-full time as a master control operator.

Who do you consider to be a mentor?
A. It would have to be Ron Viste and Ron Wiedemeier at WEAU-TV. Also Paul Stoffel, retired SBE 24 member and co-worker, for always looking for a better way and better quality product for the viewer/listener. They were always ready to help and explain things that I didn’t and still don’t understand.

What do you like most about your job?
A. I love working on live TV! Getting all the details figured out beforehand so when that curve ball comes, and they do come, you and your team can handle the challenge and change. Live TV is the best. There is no going back, no editing. I have worked on many football, basketball and hockey remotes. Living on the live edge and serving the public and viewers.

When I’m not working, I...
A. ...am camping or working on the yard. Some days I wish the yard/garden would just take care of itself. One of my goals is to camp at every State Park in Wisconsin. Another goal is to visit every World’s Fair city.
# WELCOME TO THE SBE

## NEW MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stewart J. Adams</td>
<td>Pierre, SD</td>
</tr>
<tr>
<td>Phillip Bernal</td>
<td>Brick, NJ</td>
</tr>
<tr>
<td>Justin G. Bowker</td>
<td>Saginaw, MI</td>
</tr>
<tr>
<td>Dianne Carter</td>
<td>Beverly Hills, CA</td>
</tr>
<tr>
<td>Andrew J. Christian</td>
<td>FPO, AE</td>
</tr>
<tr>
<td>Garrett W. Coons</td>
<td>Lyons, NY</td>
</tr>
<tr>
<td>Dave Doherty</td>
<td>Portland, OR</td>
</tr>
<tr>
<td>Pamela J. Dourn</td>
<td>Cuyahoga Falls, OH</td>
</tr>
<tr>
<td>Timothy A. Dourn</td>
<td>Cuyahoga Falls, OH</td>
</tr>
<tr>
<td>Patrick Downey</td>
<td>Brookfield, CT</td>
</tr>
<tr>
<td>Brian DuBee</td>
<td>Chandler, AZ</td>
</tr>
<tr>
<td>Kevin M. Gary</td>
<td>Methuen, MA</td>
</tr>
<tr>
<td>Warren L. Holybee</td>
<td>Portsmouth, VA</td>
</tr>
<tr>
<td>Jose D. Jimenez</td>
<td>Odessa, TX</td>
</tr>
<tr>
<td>Constance T. Kell</td>
<td>Portland, OR</td>
</tr>
<tr>
<td>John F. Leenerts</td>
<td>Louisville, KY</td>
</tr>
<tr>
<td>David G. Lopez</td>
<td>Rosharon, TX</td>
</tr>
<tr>
<td>Cleve E. Massey</td>
<td>Weatherford, TX</td>
</tr>
<tr>
<td>Francis C. McGuire</td>
<td>Gaithersburg, MD</td>
</tr>
<tr>
<td>Jeffrey K. Oestrech</td>
<td>Harrisburg, IL</td>
</tr>
<tr>
<td>Jessica D. Shute</td>
<td>Ocala, FL</td>
</tr>
<tr>
<td>Reiss L. Wilson</td>
<td>Missoula, MT</td>
</tr>
</tbody>
</table>

## NEW ASSOCIATE MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank J. Pekoc</td>
<td>Cleveland, OH</td>
</tr>
</tbody>
</table>

## RETURNING MEMBERS

<table>
<thead>
<tr>
<th>Chapter 15 New York City</th>
<th>Louis Libin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 17 Minneapolis</td>
<td>Harold Schardin, CPBE, CBNT, posthumously. Award accepted by Patty Schardin and their sons Tim and David</td>
</tr>
<tr>
<td>Chapter 37 District of Columbia</td>
<td>Dave Kolesar, CBT</td>
</tr>
<tr>
<td>Chapter 70 Northeast Ohio</td>
<td>James Georgiades</td>
</tr>
<tr>
<td>Chapter 38 El Paso</td>
<td>Noe Rodriguez-Jimenez (right) with Chapter Chair Jose Castro</td>
</tr>
<tr>
<td>Chapter 80 Fox Valley</td>
<td>Martin Jury (left) with Chapter Chair William Hubbard, CPBE</td>
</tr>
</tbody>
</table>
Members On The Move

Linda Baun, an SBE Fellow, has retired from her position with the Wisconsin Broadcasters Association.

Mark Simpson, CPBE, DRB, AMD, CBNE, is chief engineer at Cumulus Media, Tucson, AZ.

George White, CBNE, is a broadcast engineer with Science Applications International Corp., which works for the EPA, Washington, DC.

Ray Fodge is a field engineer II with EMF Broadcasting, Mesa, AZ.

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

Mark Your Calendar

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SBE WEBxtra online
Oct. 19, 2020 sbe.org/webxtra

SBE Certification Exams Local Chapters
Nov. 6-16, 2020 sbe.org/certification
Application deadline closed

SBE WEBxtra online
Nov. 16, 2020 sbe.org/webxtra

SBE WEBxtra online
Dec. 21, 2020 sbe.org/webxtra

SBE Certification Exams Local Chapters
Feb. 5-15, 2021 sbe.org/certification
Application deadline Dec. 31, 2020

SBE Certification Exams Local Chapters
June 4-14, 2021 sbe.org/certification
Application deadline April 16, 2021

SBE Leadership Development Course Atlanta
Jun 8-10, 2021 sbe.org/ldc

THE AES67 COMPATIBLE CODEC

A new rackmount IP audio codec for the modern studio

5 CODEC INSTANCES IN ONE BOX

Contact Us Today To Learn More
1-800-237-1776 | www.comrex.com

THE AES67 COMPATIBLE CODEC

A new rackmount IP audio codec for the modern studio

5 CODEC INSTANCES IN ONE BOX

Contact Us Today To Learn More
1-800-237-1776 | www.comrex.com

ACCESS
NX·RACK

NOW SHIPPING

ACCESS
MultiRack