

THE Signal

Bimonthly Publication of the
Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

Volume 34, Issue 3 • June 2021

SBE Certification Director Megan Clappe Named SBE Fellow

The Society of Broadcast Engineers has elevated SBE Certification Director Megan Clappe to the membership rank of Fellow. The SBE Board of Directors elected her at its meeting held May 10.

Ms. Clappe started working for the SBE in September 2003. She was originally hired as the certification assistant and receptionist, where she worked with previous Certification Director (and SBE Fellow) Linda Baun. In June 2006, Linda left the SBE for a position with the Wisconsin Broadcasters Association, and Megan was promoted to SBE certification director.

The Fellow honor is the highest membership level in the SBE. Members must have made significant contributions to the broadcast engineering field or the SBE. Candidates are nominated by their peers. Since the Society's founding 57 years ago, 82 members have been honored with the Fellow rank.

Megan's daily duties include working with the SBE Certification Committee to operate and grow the SBE Certification Program, which includes implementing and maintaining certifications to

match those needs. She coordinates testing with proctors, and follows up after exams are administered. In all, she is tasked with keeping track of more than 5,000 certifications and recertifications.

In addition to her certification duties, Megan also provides SBE member and chapter certification support, manages the SBE Awards Program; manages the SBE convention and expo presence; and oversees the SBE Store.

During her employment as certification director, the SBE Certification Committee has introduced several levels of certification, including CBNE, DRB and ATSC3. *The SBE Certification Handbook for Radio Operators* has been updated at least twice, and *The SBE Television Operator's Certification Handbook* has been updated once.



Clappe

see **FELLOW**, p. 9

SBE Plans for 2021 NAB Show Include National Meeting

As the world begins moving back to a regular routine, the SBE is developing its plans for the delayed 2021 NAB Show, which will be held in Las Vegas Oct. 9-13. While the convention is set in its date and location, the SBE plans for all its events and meetings are still being finalized. Because the NAB Show is being held in October, the

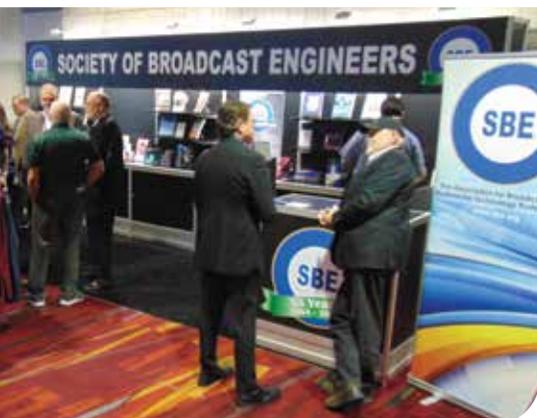
SBE is also planning to hold its National Meeting events at the same time.

If you make it to Las Vegas this fall, be sure to include all the SBE events on your schedule. The current plans follow. General locations and times are what is currently anticipated, but all the event and meeting details are still in flux while the SBE works with the

NAB to finalize all the specifics.

Because of the National Meeting overlaying the NAB Show, some traditional events held at both gatherings will be combined. The spring SBE Member Reception and the fall SBE Awards Reception will be combined. The Membership Meeting will also include the Awards Program.

see **NATIONAL MEETING**, p. 15



Highlights of the SBE presence at the NAB Show are the exhibit booth and the annual Membership Meeting.



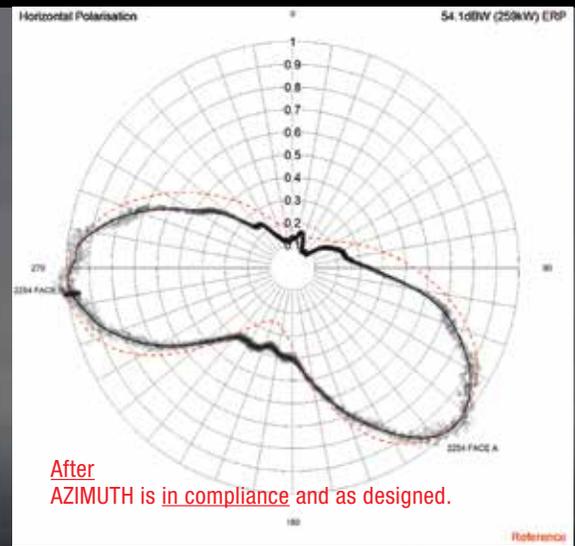
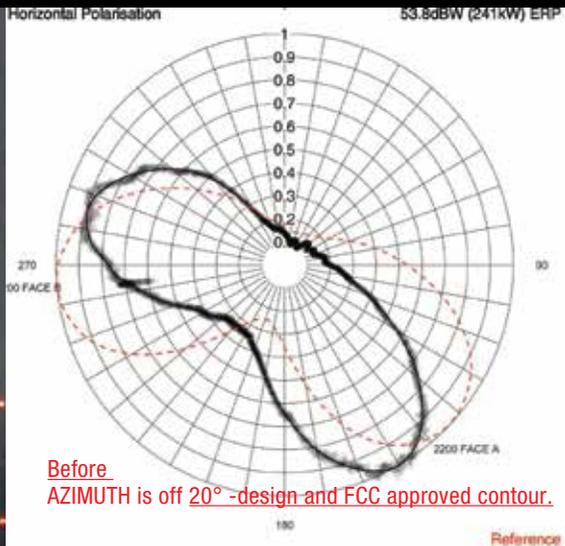
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May Board of Directors Meeting Actions

The SBE Board of Directors met online on May 10. The meeting would have been held at the NAB Show in April had the convention not been delayed. During the meeting, directors received updates on SBE business activities and finances, and reports from the various working committees were presented.

The 2021 SBE National Meeting was originally planned to be held in Syracuse in the fall, but with the delayed NAB Show, Chapter 22 has decided to cancel the 2021 Expo. The SBE Board discussed holding the 2022 SBE National Meeting in Syracuse, if the event details can be arranged. The SBE is working with the NAB on the details of exhibiting and participating in the 2021 NAB Show.

The SBE held a strategic planning conference in 2018. Results of that meeting have been used to guide several SBE projects since then. SBE President Wayne Pecena, SBE Vice President Andrea Cummis and SBE Executive Director Jim Ragsdale presented a plan to the board to work with a facilitator to review the 2018 data and progress to update the action items for the SBE to undertake going forward. The plan and expenditure was approved.

SBE General Counsel Chris Imlay has announced that he plans to retire from the SBE at the end of 2021. With that, a search

committee has been formed to identify and retain the services of a communications lawyer to assist the SBE on spectrum and broadcast-related matters. With the SBE National Office based in Indianapolis, an Indi-



The SBE Board of Directors met virtually on May 10.

anapolis-based attorney will be retained to focus on the association business items.

The next regular meeting of the Board is scheduled to be held during the 2021 NAB Show in October.



Certification Question

Answer on page 6

How quickly must an EAS Required Monthly Test be rebroadcast?

- A. Immediately
- B. Within one hour of receipt
- C. Within 15 minutes of receipt
- D. At the discretion of the operator, provided it is properly logged.



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LETTER FROM THE PRESIDENT

By Wayne Pecena, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE
SBE President
wpecena@sbe.org

Lifelong Learning and the Broadcast Engineer

The broadcast engineer is always learning and has done so throughout his or her career. Whether new to the industry or a seasoned broadcast engineer, the need for new knowledge continues. Realize it or not, the broadcast engineer has embraced lifelong learning. Lifelong learning can be described as a process to continue your personal education to achieve personal fulfillment throughout your life. Your personal education transcript will include a wide variety of education media that could further your career, introduce you to a new hobby or passion, or simply inspire you to add a formal degree or professional certification to your resume.

A key attribute to lifelong learning is that it is undertaken on a voluntary basis initiated by the individual. Formal education approaches are often involved, especially when a professional degree is the desired end goal, but an informal approach often is the basis of your personal lifelong learning. Informal methods take on a wide range of techniques such as self-study through individual reading and/or attending the vast array of virtual events offered today. Learning through interaction with others is an important aspect of informal learning. While social events might be curtailed for the moment, interaction with others can still occur thru the various social media platforms, online blogs and plain old OJT (on-the-job training).

Some employers realize the value of lifelong learning and recognize that the value of a core component of the employee's development process is seen outside the scope of the traditional formal education process. Corporate human resource departments often use the term "continuous learning" to describe the employee development process. While the approaches are identical or similar, the end goal of continuous learning is focused on the corporate goal of achieving or maintaining a competitive advantage in knowledge-based industries, rather than being specific to the individual.

What Does This Mean to the Broadcast Engineer?

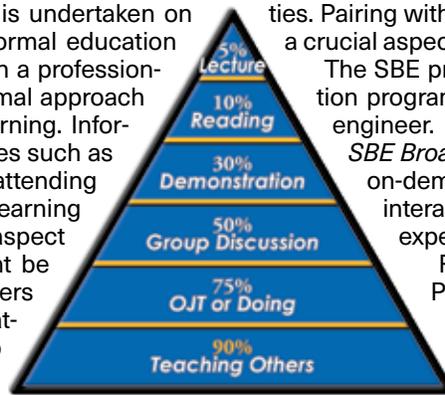
Let's face it, the successful broadcast engineer loves the industry. With the lack of a widespread formal broadcast engineering educa-

tion platform to enter the industry, the broadcast engineer is largely self-taught. Yes, you may begin in the industry with a formal education background or two- or four-year degree in electronics, computer science or a totally unrelated educational background. The true learning begins on the job through formal and informal OJT experiences and interaction with others. Those who are fortunate to be in a corporate environment that recognizes the importance of employee development are likely provided a mix of formal and informal learning opportunities. Pairing with experienced individuals in the company is often a crucial aspect of the development process.

"Wisdom is in the old farts."
~ Dr. Barry Blesser

The SBE provides several professional development education programs to support lifelong learning for the broadcast engineer. Self-study resources are available such as the *SBE Broadcast Engineering Handbook*, a diverse library of on-demand webinars and YouTube videos. Online social interaction channels are available with in-person events expected to return later this year.

For the newcomer to the industry, the Technical Professional Training Program (TPT) has been well received by the industry. The TPT combines Webinars by SBE resources with certification and mentorship into an affordable package. A copy of the *SBE Broadcast Engineering Handbook* is included as well. For further details see sbe.org/tpt or contact the SBE National Office.



The Learning Pyramid Retention. Percentage values are from the National Training Lab research findings.

Become a Mentor

For the experienced broadcast engineer, enhance your own lifelong learning by becoming an SBE mentor. Not only do you give back to the industry you love, but you enhance your own competence by sharing your knowledge, experiences and wisdom gained through the years with others. The National Training Laboratory in Bethel, ME, developed the Learning Pyramid, which organizes methods of learning and retention. The pyramid describes participatory methods as the more effective methods and teaching others as the most effective learning activity in which one can engage.

The SBE Mentor Program requires some basics to become a Mentor. It also requires the desire to help others grow in their career, exhibit a positive attitude toward the broadcast engineering field and a desire for both the mentor and the mentee to learn. Find further information and a Mentor application at sbe.org/mentor.

Plans continue for the SBE to return to a somewhat normal schedule at the 2021 NAB Show in October. On Saturday, Oct. 9, a morning SBE Ennes Workshop will be held at the Las Vegas Convention Center. On Monday evening, Oct. 11, the SBE Membership Meeting and Awards Program will be held with a reception to immediately follow. Further details will be available as we get closer to October. I hope you will be able to attend and look for the SBE booth at the convention.

I personally want to know your suggestions, comments and concerns. Your feedback is essential to our collaborative effort to insure the SBE meets our members career needs. 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, stay healthy and keep learning!

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EDUCATION UPDATE

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

Food for Thought

I recently discovered a free newsletter from Rishad Tobaccowala. I wrote to ask if I might share some of his insights here, and he graciously granted permission, asking only to provide a link so you could see the newsletter and determine if it might be of value to you.

At the beginning of each installment, Rishad states: "The underlying connection between the topics I write about and the goal of the newsletter is to help people see, feel and think differently about growing themselves and their careers."

From his "Six Ways To Grow Yourself," here are some to ponder:

Mind the Gap

"Yesterday I attended an online talk from London by Alain de Botton of The School of Life. He talked about his new book, An Emotional Education, noting that while many people teach skills and expertise very few people focus on how to live an emotional life. He decried many US self-help books that believe in the achieving of perfection and having it all."

Today, in the Instagram age, so many of us try to be pixel perfect. But life is not pixel perfect. In fact most of life is "minding the gap." The gap between who we are and what we want to be. The gap in communication between any two people. The gap between what we say/project externally and what we believe/live with internally.

The most contented people tend to be those who have narrowed this gap or being aware of it find ways to accept that life is incomplete, imperfect, often incomprehensible. They are authentic, trustworthy, and happy within themselves not needing constant external validation and have strong relationships and connections with people. They are vulnerable, empathetic and constantly growing (often making mistakes as they do).

There are others who project power, fame and wealth but you begin to see that often many have the warmth of a toilet seat, all the external validation they have or seek does not fill the chasm of emptiness that echoes

with hollowness and this truth burns and eats their inside even as they smile and blow kisses on the outside.

So what to do? Author George Saunders said, "Err in the direction of kindness."

"Today in the world we have much rage. So best be kind.

Kind to others and to yourself.

This is one way in helping mind the gap."

Compound Improvement

The single most powerful concept in finance is that of compounding. Compounding interest and compounding returns can over time create wealth or lead one to bankruptcy depending on whether you owe or own capital.

If you start with 12,000 dollars and add 1,000 dollars per month every month for 30 years and it grows at 10 percent you have just less than 2.5 million dollars. The key is that you set aside a small sum every month for a long time.

In a world of change we all may want to consider another way compounding can help us grow in changing times, and drive mental, emotional and even financial wealth, which is compounding improvement.

If a company can only change and transform if its people change and transform, we should each invest in upgrading our own mental and emotional operating systems.

There is so much we cannot control in a world driven by global, demographic, social and technological change but instead of being buffeted about helplessly in a sea of chaos maybe we can try to control and build ourselves to be better.

Three ways on how you might start this very minute begin to embrace compounding improvement:

a) Discipline equals freedom: This is also the title of a book by Jocko Willink, a Navy Seal. Basically, if you want to get a grip on the world get a grip on yourself.

b) Invest an hour every day in learning: The world is changing so fast that many of your skills and expertise and mindsets need continuous upgrading. While many of us set aside time to exercise to maintain our physical operating system we need to also feed and exercise our minds. The power of this habit is that at the end of a year you will have spent 365 hours learning new things by just doing one hour a day. You will gain compound returns to thought!

c) Deliberate practice: Professor Anders

Education Almanac

Webinars by SBE

June 17: 2021 SBE RF Safety Course
June 24: 2021 IP Networking, Part 6
sbe.org/webinars



Ennes Workshop

Oct. 9: 2021 NAB Show

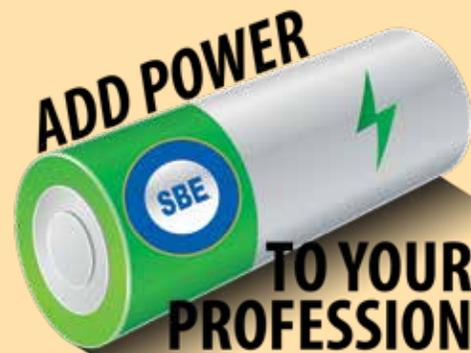
sbe.org/ennes_workshop



Ericsson, wrote a book called Peak, which is the best study of deliberate practice that entails immediate feedback, clear goals and focus on technique. According to his research, the lack of deliberate practice explained why so many people reach only basic proficiency at something, whether it be a sport, pastime or profession, without ever attaining elite status.

I'm interested to hear what you think we might add to the SBE's educational repertoire to better serve the needs of our membership. Your comments and thoughts are always welcome: gmorrill@sbe.org.

Thank You to all the Membership Drive Recruiters



The annual SBE Membership Drive concluded at the end of May. If you recruited a new member during the Drive, **thank you!**

The prize drawing for recruiters will be held this month. All the recruiters also earned a discount on their 2022 SBE dues. At the same time, they helped grow the society and helped someone further his or her career.

LINKS

Rishad Tobaccowala newsletter
rishad.substack.com

More about Rishad Tobaccowala
rishadtobaccowala.com



CERTIFICATION UPDTE

By Cris Alexander, CPBE, AMD, DRB
Director of Engineering, Crawford Broadcasting Company
calexander@sbe.org

A Mark of Excellence

What does SBE certification tell me about a person? What value does certification have in the real world?

First, it tells me that the person recognizes the value of certification and the value of the SBE as a certifying and standards-setting organization that is, in essence, the authority on what level of expertise constitutes a "broadcast engineer." It tells me that person went to the trouble and expense of studying and sitting for a certification exam. It takes some effort to get and stay certified.

An applicant's certification level tells me that the person has exhibited a certain level of expertise pertinent to the certifications that he or she holds. As a manager, I know that I can hire that person and expect him or her to perform to that level. In our company, we require SBE certification of all our chief engineers and engineering managers, and we encourage it for all other engineering staffers. The higher the certification level of an employee-candidate, the more qualified I assume he or she is for the position, and the more that person is worth to this company.

Specialist certifications tell me even more about the person. A person holding a specialist certification has demonstrated specialized knowledge in a certain area – digital television (8-VSB, ATSC3), digital radio (DRB) or AM directional (AMD). If I am looking for an engineer in one of our AM-heavy markets, the candidate with the AMD has a leg up on all the candidates without. Likewise, in markets where we operate digital stations, the candidate with the DRB specialist certification will move up the list ahead of those without. In today's IT-intensive broadcast environment, the CBNT- or CBNE-holding candidate is way ahead of the game.

So, certification is an excellent primary screening and qualifying tool that my company uses in the hiring process, and rightly so. But what about existing employees? What does certification tell me about the person who may have been working for us for years?

That person's certification level and history tells me a lot about his or her drive, work ethic and enthusiasm for the job, all of which are qualities that we examine in annual performance reviews. Take for example the otherwise very qualified and very experienced chief engineer who had been grandfathered into his employment without certification for many years. When he went out and got his CSRE and then followed that with CBNT and AMD specialist certifications, that said something about his leadership. By obtaining those certifications when he really didn't need them to keep his job, he led by example, and several of his engineering staffers followed him to acquire their own certifications.

As noted, I certainly consider those things during annual employee reviews. An employee who has gone out of his or her way to demonstrate to me and the company that they are actively improving their professional pedigree and thus their value to the company

gets an extra mark in the plus column during the review.

You will find many of our engineers' certification marks prominently displayed on their business cards to demonstrate to those with whom they professionally interact that they are, in fact, professionals.

As I deal with engineers at other companies, the certification marks after their names tell me something about them as well. Their certification tells me I am not dealing with a hobbyist that likes to play with broadcast equipment, but rather a certified broadcast engineer, someone who not only has the knowledge and skills to be a real broadcast engineer but who has also taken the time and gone to the trouble of getting the credentials to go with that knowledge and those skills.

Finally, whether I am dealing with a job candidate, an engineer within our company or someone on the outside, those certification marks tell me I'm dealing with a credentialed professional. Certified broadcast engineers are broadcast engineers who take their occupations seriously. That's the kind of people I like to work with.

Society of Broadcast Engineers, Inc. 2020 Audited Financial Statements Combined Statement of Assets, Liabilities and Net Assets* December 31, 2020

ASSETS:	
Cash and cash equivalents	\$107,344
Investments	1,264,963
Property & Equipment, Net	42,216
Intangible Assets, Net	600
Total Assets	\$1,415,123

LIABILITIES and NET ASSETS:	
Liabilities	\$18,359
Net Assets	1,396,764
Total Liabilities & Net Assets	\$1,415,123

2020 SBE Revenue & Expense Statement

INCOME:	
Membership Fees & Support	\$349,710
Membership Services	33,987
National Meeting	6,650
Certification	50,975
Education Services	131,156
SBE Store/Book Store	5,909
Website	9,330
Frequency Coordination	491,345
Net Investment Return	126,444
Interest	37
Total Revenue	\$1,205,543

EXPENSES:	
Program Services	\$757,067
Management & General	262,671
Total Expenses	\$1,019,738

NET ASSETS 12/31/2019	\$1,210,959
NET ASSETS 12/31/2020	<u>\$1,396,764</u>
CHANGE IN NET ASSETS	\$185,805

* CPA-conducted financial audit. SBE uses modified cash accounting method. Investments are listed at market value.



Answer from page 3

The answer is B

RMTs must be performed between 8:30 a.m. and local sunset during odd-numbered months, and between local sunset and 8:30 a.m. during even-numbered months. Received monthly tests must be retransmitted within 60 minutes of receipt.

SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION	<p>Certified Professional Broadcast Engineer (CPBE) Craig Beardsley, Chicago, IL - Chapter 26 Robert Daly, Eagan, MN - Chapter 17 David Pritchard, Gurnee, IL - Chapter 28</p> <p>Certified Professional Broadcast Engineer (CPBE) ATSC3 Specialist (ATSC3) Digital Radio Broadcast Specialist (DRB) Ralph Hogan, Tempe, AZ - Chapter 9</p>	<p>Certified Broadcast Networking Engineer (CBNE) Vincent Atwood, Stewartstown, PA - Chapter 132 Ralph Hogan, Tempe, AZ - Chapter 9</p> <p>Certified Broadcast Television Engineer (CBTE) Vincent Atwood, Stewartstown, PA - Chapter 132 Jose Boveda, Miami, FL - Chapter 53</p> <p>Certified Broadcast Networking Technologist (CBNT) Jose Boveda, Miami, FL - Chapter 53 David Pritchard, Gurnee, IL - Chapter 28</p>	<p>Certified Professional Broadcast Engineers and certified senior broadcast engineers who have maintained SBE certification continuously for 20 years, are at least 59½ years old and are current members of the SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment and are at least 59½ years old may be granted Life Certification if they so request. If the request is approved, the person will continue in his/her current level of certification for life.</p>
FEBRUARY EXAMS	<p>Certified Broadcast Radio Engineer (CBRE) Anthony Dimsdale, Woodruff, SC - Chapter 86</p> <p>Certified Broadcast Television Engineer (CBTE) Michael Hancock, Round Rock, TX - Chapter 79 Paul Holzwarth, Billings, MT - Chapter 6</p> <p>Certified Audio Engineer (CEA) Kenneth Cameron, Verona, VA - Chapter 78</p> <p>Certified Broadcast Networking Engineer (CBNE) Reed LaCoste, Lake Elsinore, CA - Chapter 131 William Semler, Bethlehem, PA - Chapter 18</p>	<p>ATSC 3 Specialist (ATSC3) Ted Hand, Charlotte, NC - Chapter 45 Victoria Kipp, Oregon, WI - Chapter 24</p> <p>Certified Broadcast Networking Technologist (CBNT) Andrew Benton, Las Vegas, NV - Chapter 128 Steven Pulido, Richardson, TX - Chapter 67 Michael Smith, Cananadaigua, NY - Chapter 57</p> <p>Certified Broadcast Technologist (CBT) Sean Tivnan, Wilmington, MA - Chapter 11 Dieter Taylor, Bend, OR - Chapter 76</p>	<p>Certified Radio Operator (CRO) Blake Simony, Centennial, CO - Chapter 48</p> <p>Certified Television Operator (CTO) Kyle Bell, Seminole, FL - Chapter 39 Andrew Benton, Las Vegas, NV - Chapter 128 James Jernigan, Ringoes, NJ Lawrence Openano, Torrance, CA - Chapter 47</p>
SPECIAL PROCTORED EXAMS	<p>Certified Broadcast Networking Engineer (CBNE) Shane Toven, Rocklin, CA - Chapter 43</p>	<p>Digital Radio Broadcast Specialist (DRB) Shane Toven, Rocklin, CA - Chapter 43</p>	
SBE CERTIFIED SCHOOL COURSE COMPLETION	<p>Certified Broadcast Technologist (CBT) DINFOS Gaylord Foster, FPO, AE Graham Schaefer, Fort Bragg, NC - Chapter 147</p>	<p>Got your SBE Certification pin? sbe.org/pins</p>	
CERTIFIED BY LICENSE	<p>Certified Broadcast Technologist (CBT) Michael Byer, Asheville, NC - Chapter 45</p>	<p>Charles Cazares, Brookshire, TX - Chapter 105 Erik Hood, Aurora, CO - Chapter 48</p>	<p>Brad Humphries, York SC - Chapter 45</p>
CERTIFIED RADIO OPERATOR (CRO)	<p>Elian Daniel, Twin Falls, ID William Harrison, Alexandria, VA Rameshwar Hiranman, Mississauga, ON</p>	<p>East Valley Institute of Technology Caleb Adams, Gilbert, AZ Cole Dryden, Chandler, AZ Matthew Estrada, Phoenix, AZ</p>	<p>East Valley Institute of Technology (cont.) Annastasia Oswald, Mesa, AZ Boysie William Caison, Phoenix, AZ</p>
CERTIFIED TELEVISION OPERATOR (CTO)	<p>Laina Barrett, Oklahoma City, OK</p>	<p>Rameshwar Hiranman, Mississauga, ON</p>	
RECERTIFICATION Applicants completed the recertification process either by re-examination, point verification through the local chapters and national Certification Committee approval and/or met the service requirement.	<p>Certified Professional Broadcast Engineer (CPBE) Mark Heller, Two Rivers, WI - Chapter 28 Robert Yankowitz, New Bedford, MA - Chapter 11</p> <p>Certified Professional Broadcast Engineer (CPBE) AM Directional Specialist (AMD) John Huntley, Rockford, IL - Chapter 96</p> <p>Certified Professional Broadcast Engineer (CPBE) AM Directional Specialist (AMD) Digital Radio Broadcast Specialist (DRB) Cris Alexander, Aurora, CO - Chapter 48</p> <p>Certified Senior Television Engineer (CSTE) Zachary Brockett, Grand Terrace, CA - Chapter 131</p> <p>Certified Senior Radio Engineer (CSRE) 8-VSB Specialist (8-VSB) William Stack, Cranbury, NJ - Chapter 15</p> <p>Certified Broadcast Networking Engineer (CBNE) Christopher Tarr, Mukwonago, WI - Chapter 28</p>	<p>Certified Broadcast Radio Engineer (CBRE) Tim Diehl, Tulsa, OK - Chapter 56 John Roberts, Lawton, OK - Chapter 85 Kevin Trueblood, Estero, FL - Chapter 90</p> <p>Certified Broadcast Television Engineer (CBTE) Richard Bach, Metairie, LA - Chapter 72 Frank Berman, Melville, NY - Chapter 15 Ernesto Camareno, Mishawaka, IN - Chapter 30 Timothy Mance, Dallas, OR - Chapter 124 Kevin Schrader, Marion, IA - Chapter 109 Dan Villasenor, Glendora, CA - Chapter 47</p> <p>Certified Broadcast Networking Technologist (CBNT) William Gaddis, Tusaloosa, AL - Chapter 68 Mark Hoenecke, Wausau, WI - Chapter 80 William Stack, Cranbury, NJ - Chapter 15 Britny Williams, Madison, WI - Chapter 24</p> <p>Certified Radio Operator (CRO) Cliff Moquin, Tucson, AZ</p>	<p>Certified Broadcast Technologist (CBT) Victor Boggess, Glen Allen, VA - Chapter 60 William Carpenter, San Francisco, CA - Chapter 40 Shane Godmere, Green Bay, WI - Chapter 80 Joseph Graves, Fort St. John, BC Eric Hartzell, Columbus, OH - Chapter 52 Thomas Kettwig, Boise, ID - Chapter 115 John Knoblock, Akron, OH - Chapter 70 Theodore Nadaskay, Milton, FL - Chapter 106 Robert Reite, Exeter, PA - Chapter 2 Richard Reyes, Las Vegas, NV - Chapter 128 Jeremy Scott, Wellford, SC - Chapter 116</p> <p>Certified Television Operator (CTO) Franklin Gemind, Cuyahoga Falls, OH Michael Johnson, Chester, PA - Chapter 18 Jeffrey Knight, Reno, NV Allan Llanos, Coral Springs, FL Dixie Sizer, Fort Mill, SC</p>

ENNES EDUCATIONAL FOUNDATION TRUST

The trust offers scholarship and educational programming and grants that benefit broadcast engineering and the broadcast engineer. Submit tax-deductible donations, payable to the Ennes Educational Foundation Trust, to the Society of Broadcast Engineers; 9102 N. Meridian St., Suite 150; Indianapolis, IN 46260.

- Harold E. Ennes Scholarship**
Thomas Alderson, Spokane, WA
Ronald Bartlebaugh, N. Canton, OH
John Byrne, Jr., Lyndell, PA
Jorge Conde, Guayama, PR
Kevin Hornberger, Plainfield, IL
Karl Lahm, P.E., Rapid City, MI
John Peterson, Fargo, ND
Jan Pritzl, Milwaukee, WI
Jason Quintana, Denver, CO
Mark Richer, Arlington, VA
Thomas Rogers, Fort Worth, TX
Stephen Smith, Loudon, TN
Thomas Weber, Greenwood, IN
S. Merrill Weiss, Metuchen, NJ

- Youth Scholarship**
Gregory Foss, Riverside, CA
Robert Lacey, Jr., Methuen, MA
Scott Pendergraft, Wrightsville, PA
Kishore Persaud, Catonsville, MD
John Peterson, Fargo, ND
Jason Quintana, Denver, CO
Michael Shovan, Newburgh, NY
Jonathan Solomon, Columbia, MD
Thomas Weber, Greenwood, IN
Yuyi Zang, Woodland Hills, CA

- John H. Battison Founder's Scholarship**
John Byrne, Jr., Lyndell, PA
Jason Quintana, Denver, CO
Thomas Weber, Greenwood, IN

- Robert D. Greenberg Memorial Scholarship**
Jason Quintana, Denver, CO
Richard Rudman, Santa Paula, CA
Milford Smith, Jr., Lawrenceville, NJ
Thomas Weber, Greenwood, IN

In Memory of Chris Tobin
Amanda Gottfried

sbe.org/ennes

THANKS TO THE FOLLOWING SUPPORTERS FOR THEIR CONTRIBUTIONS

Accredited SBE Frequency Coordinators

The Society of Broadcast Engineers began the Accreditation Program to provide volunteer SBE coordinators the opportunity to be recognized as part of a standards-based, nationally recognized program of local voluntary broadcast-auxiliary frequency coordinators.

The program also makes it possible for SBE to demonstrate to the broadcasting industry the widespread acceptance of a voluntary set of standards guiding local coordination.

Thomas Weber, CPBE, CBNT
Indianapolis

Candidates Announced for SBE Election



Cummis

Each year the SBE membership elects members to serve on the national Board of Directors, the governing body of the society. This includes all four officers for one-year terms and half the 12 directors for two-year terms.

Additional candidates may be nominated by the membership. Any eligible member proposed by at least ten members to the national Secretary by July 12 will be added to the ballot. The election will take place July 23 through August 25. Balloting will be via the election website, except for those members who have

opted out of electronic voting this year or who have not provided the SBE National Office with their email address. They will receive their ballots through the mail.

The Nominations Committee is chaired by Roswell Clark, CPBE, CBNT. Committee members are John Collinson, CPBE, 8-VSB, AMD, CBNE, New Port Richey, FL; Chris Crump, CBNE, Buford, GA; Mark Johnson, CSRE, Panama City Beach, FL; Jason Ornellas, CBRE, CRO, Sacramento, CA; and Jeff Schick, CBT, Forest Hills, NY.

For more information about candidacy, contact SBE Secretary Kevin Trueblood at ktrueblood@sbe.org or SBE Executive Director Jim Ragsdale at jragdale@sbe.org or 317-846-9000.



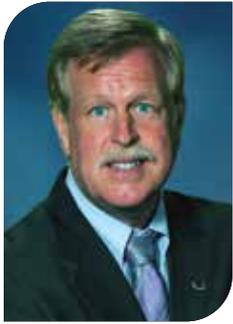
Ibisheva



Humphries



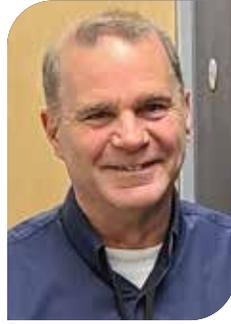
Juniet



Keiler



Morrill



Ratener

Nominations Committee Candidate Slate

** indicates incumbent*

Officers

President: Andrea Cummis, CBT, CTO
Chapter 15 New York; Bethlehem, PA

Vice President: Ted Hand, CPBE, 8-VSB,
AMD, ATSC3, DRB

Chapter 45 Charlotte; Charlotte, NC
Secretary: Kevin Trueblood, CBRE, CBNT *
Chapter 90 Southwest Florida; Estero, FL

Treasurer: Jason Ornellas, CBRE, CRO
Chapter 43 Sacramento; Sacramento, CA



Hand



Ornellas



Whealy



Trueblood

Directors

(top six vote getters will be elected)

Brad Humphries, CBT

Chapter 45 Charlotte; York, SC

Zhulietta Ibisheva, CBTE, CBT

Chapter 50 Hawaii; Honolulu, HI

Jeff Juniet, CBTE

Chapter 42 Central Florida; Casselberry, FL

Ched Keiler, CPBE, 8-VSB, CBNE *

Chapter 53 South Florida; Ft. Lauderdale, FL

Geary S. Morrill, CPBE, CBNE *

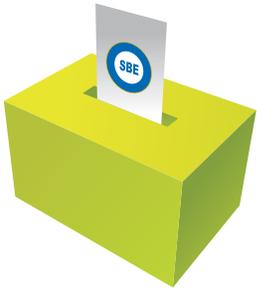
Chapter 91 Central Michigan; Saginaw, MI

David Ratener, CPBE, CBNT

Chapter 16 Seattle; Seattle, WA

Dan Whealy, CBTE *

Chapter 96 Rockford; Sumner, IA



Renew Membership by June 30 or Lose Your Benefits

When you renew your SBE membership on time, you retain all your member benefits without interruption. But if you have not yet renewed, you need to do so today. While renewals were due April 1, you are now in the grace period. If you don't renew by June 30 (the end of the grace period), you will be dropped from the active roll.

Member, Senior, Student, Associate and Fellow membership categories can renew online at sbe.org. Click on "Renew Membership" at the top of the website home page. Mobile users can find it in the hamburger drop-down menu. The online system is available 24/7, is secure and accepts Visa, MasterCard and American Express.

When renewing, consider upgrading to SBE MemberPlus. SBE

MemberPlus provides you with access to all archived and all new Webinars by SBE. And if you are a Student or Life Member, you can take advantage of SBE MemberPlus, too. Adding MemberPlus gives you full access to all the Webinars by SBE. Student MemberPlus costs \$90, current Life Members can upgrade for \$90, and all other membership categories cost \$175.

You may also renew by completing and returning the renewal form that you received by mail in early February with payment by mail or fax to the SBE national office.

Questions about renewal? Contact Scott Jones at the SBE National Office at 317-846-9000 or kjones@sbe.org.

FELLOW, from p. 1

The CertPreview practice test software has been redeveloped once and is slated for a second update later this year during her time as director.

In the letters supporting Megan's nomination, her dedication to SBE certification and the Society in general are a common thread. One letter noted, "She is always quick to offer alternative ideas and processes to make the certification procedure more efficient. When the pandemic hit in early 2020 Megan was first to offer an alternative to face-to-face testing."

Another supporting letter said, "She is the glue that holds the program together. The volunteer committee members contribute their fair share to the work, but it is Megan who ensures the work is done in a timely manner."

The December 2020 launch of the SBE ATSC3 Certification was also noted, saying it was due to "no small measure of Megan's dedication and determination to gather and catalog test and essay questions from experts in the field, find two rounds of Beta testers and keep the ATSC3 certification committee on task to ensure the program kept moving during the pandemic."

Several letters noted her contributions to the SBE. Quoting one: "I would venture to say that there are few SBE members that don't know who Megan is, and

LIST OF ALL SBE FELLOWS

sbe.org/fellows

I certainly consider her contribution to the SBE's Certification program to be conspicuous. Megan's daily contribution to the program should indeed be considered valuable to the advancement of broadcast engineering or its allied professions."

"While most of those elected to SBE Fellow are working-in-the-field broadcast engineers, Megan's contributions to the SBE in general and the Program of Certification specifically are beyond measure," said Wayne Pecena, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE, president of the Society of Broadcast Engineers. "I'm proud to welcome Megan to the SBE Fellow ranks."

Megan will be recognized for her election to Fellow during the SBE Membership Meeting and National Awards Program, planned to be held on Oct. 11, 2021, in Las Vegas, during the annual SBE National Meeting, which is planned to be held in conjunction with the 2021 NAB Show. A list of all those who have been named SBE Fellows is posted on the SBE website.

Megan resides in the Indianapolis metro area. Previous to her employment with the SBE, she worked for the Embassy Theater in Ft. Wayne, IN.

Want to be a mentor or a mentee?

SBE
Mentor Program



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

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LEGAL PERSPECTIVE

By Chris Imlay, CBT
SBE General Counsel
cimlay@sbe.org

UHF Wireless Mics and a Dedicated TV Band Channel

As this is being written, the FCC, in its infinite wisdom, has just proposed to add commercial space launch operators to the hodgepodge of users in the 2 GHz BAS band. More on that nightmare shortly, but for now, let's see how we are doing on wireless mics.

In Docket 15-146, commenced in 2015, after UHF wireless mics were limited to unused TV channels below 608 MHz, the FCC had under consideration setting aside one vacant UHF television channel in each market for wireless microphone and TV White Space Device use. That one channel would not be available for the UHF band repack. In a report and order released Dec. 8, 2020, the FCC decided to not do that, and terminated the proceeding. The FCC's 2015 proposal included a provision that certain repack TV stations must file a study demonstrating that grant of the application would not eliminate the last available, vacant, UHF television channel within the station's protected contour area. The FCC said, in deciding against this proposal, that it continues to support unlicensed white space devices and wireless microphone users' operations and "continue(s) to believe they serve important interests," but other actions the FCC took in the meantime, and the difficulty in accommodating displaced TV stations in the remaining UHF TV band below 608 MHz, the set-aside of a TV channel wouldn't serve the public interest.

In January 2021, Shure and Sennheiser filed petitions for reconsideration of the FCC's decision. Shure and Sennheiser made good arguments that there is very high demand for UHF wireless mics, because the DTV repack has moved many TV stations into the 500 MHz band; there is far less available spectrum available for UHF wireless mics; sports, entertainment and ENG audio production have dramatically increased demand for wireless mic spectrum, while the spectrum supply has dwindled. They argue that the alternative bands made available in 2017 for wireless mics at 900 MHz, 1.4 GHz and 7 GHz is not at all a sufficient substitute, for various reasons. Broadcast engineers who deploy these mics need the operational flexibility that UHF provides. These are well-argued petitions,

but it is always difficult to ask the FCC to change its mind about a spectrum decision once made on a complete record, and Shure and Sennheiser have a tough row to hoe. This is especially true where there are valid countervailing considerations, such as the need to provide enough repack spectrum to accommodate displaced television stations of all classes, and to avoid interference with land mobile in the T-Band markets. Nevertheless, it is patently obvious to anyone engaged in large scale audio and video production, and especially in sports production, that there simply is not enough spectrum for wireless mics, and the replacement bands that the FCC came up with in 2017 are not at all a sufficient substitute.

Although not envisioned by the rules governing petitions for reconsideration (where only oppositions are permitted by the rules, and replies to those oppositions, in fixed timetables) more than 100 individuals, mostly broadcast engineers, and a few entities that utilize wireless mics in entertainment production venues, filed what amount to statements in support of the Shure and Sennheiser Reconsideration Petitions. As this is written, the SBE, with the guidance of its Government Relations Committee, is preparing a submission to the Commission noting the high and increasing level of demand for wireless mic spectrum and the difficulties faced by audio and video producers and broadcasters covering large scale news, entertainment and sports production, without taking a position as to whether or not a dedicated UHF television channel as the best means of addressing the shortfall.

Notably, the NAB filed a strong opposition to the petitions, claiming that both Shure and Sennheiser had made the same arguments before and those same arguments had been rejected by the Commission. Clearly, the NAB's interest, which is perfectly valid, is to preserve all TV channels for main channel TV stations at UHF. The NAB confined its argument to whether or not the FCC balanced the need to preserve main-channel TV station spectrum with the benefits of a dedicated UHF channel for wireless mics. The NAB, to its credit, did not assert that there was not a shortage of wireless mic spectrum, and it did not argue that there is no need to make up in some fashion for the losses in available UHF spectrum for wireless mics occasioned by the loss of the 700 MHz band and more recently the 600 MHz band.

In declining to set aside a dedicated TV channel for wireless mics and white spaces devices, the FCC acknowledged that since the UHF auction, the TV band is smaller and more densely packed than it was in the 2015 NPRM. Then, there were 1,384 full power and Class A television stations operating on UHF channels 21 through 51 for an average of 46 stations per channel. Today, there are 1,088 such stations operating on channels 21 through 36, an average of 68 stations per channel, many with expanded facilities. In addition, the TV band is more densely packed as a result of the repack. The FCC claimed that there are numerous major metropolitan areas in the United States that have no vacant 6 MHz channels, so no nationwide solution was possible. That said, the FCC did not concede that making available 900 MHz, 1400 MHz or 7 GHz spectrum for wireless mics was not adequate as a substitute for the displaced wireless mics at UHF.

So we have a significant dilemma here. If not a dedicated channel in each market, are there market-by-market remedies that would facilitate some UHF replacement spectrum for wireless mics? The FCC doesn't see the need to do so. The SBE does.

Have you participated in the SBE Compensation Survey?

If you did, thank you!
If you haven't yet, why not?

The SBE needs your input to provide the most useful data in the annual Compensation Survey. The more who participate and respond, the more accurate the data can be.

It only takes a few minutes to respond.

Use a browser, tablet

or your mobile device. The results will be compiled and made available soon. SBE members will be able to access the report for free as a member benefit. Follow the URL or click the QR code now.

sbe.org/survey





FOCUS ON THE SBE

By James Ragsdale
SBE Executive Director
jagsdale@sbe.org

Investing in the Future

As I have noted in previous articles, the SBE is and will continue to invest in the future of broadcast engineering. Some of the ways that we are doing that are by providing certifications and webinars in developing technologies like digital AM, AoIP, and ATSC 3.0. There are a few lesser known ways that we as a member-led organization are investing in the future of the industry. I would like to mention these to you.

First, for those members who are experiencing financial difficulty and are struggling to renew their standard membership, we have a standard membership fee one-time hardship waiver available for renewals. These waivers are funded by donations from other members.

Another way that our members are investing in the future is through Ennes Workshops and Scholarships. These workshops and scholarships are funded through the Harold Ennes Educational Foundation Trust.

The Trust was initiated by Indianapolis Chapter 25 in 1980 in memory of Harold E. Ennes, author of many textbooks for broadcast and broadcast-related communications training and a member of the Indianapolis chapter. Ennes was a member of the national SBE Certification Committee and made many contributions to the early development of the Certification Program.

To encourage greater growth, in 1981 the Trust was transferred by Chapter 25 to the SBE national organization to administer. The Trust has been funded through gifts from actively-employed, retired, or deceased broadcast engineers who wanted to provide affordable learning opportunities for those wishing to develop their expertise in the field. The Trust continues to grow from gifts provided by members of the SBE.

The workshops are typically one day in length (approximately 9 a.m.-5 p.m.) and are very affordable. These programs feature multiple topics and speakers that provide television and radio engineers with the latest information in broadcast and media technology.

The Trust awards scholarships annually to applicants. The Harold E. Ennes Scholarship, Robert D. Greenberg Scholarship, John H. Battison Founder's Scholarship and recently 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.

Being new to the SBE, one of the most impressive ways that I have seen the membership investing in the future is through the SBE Mentor Program, which was launched in 2016. The Mentor Program is designed to provide broadcast engineers who are new to the field a means to gain insight and work with a seasoned broadcast engineer who can share his or her acquired knowledge. The SBE accepts applications for mentors and mentees from SBE members, and mentees are paired with mentors based on mutual experiences and career interests. I am so impressed with the willingness of experienced broadcast engineers to pass on their knowledge to newer broadcast engineers. Please consider volunteering as a mentor.

Investing in Education

Another way that our members are investing in others is through the volunteer presentation of Webinars by SBE. New webinars are being added every month, and these webinars provide valuable educational opportunities for a long time after presentation through on-demand viewing. The SBE provides the infrastructure to record these webinars, but the content is provided by our members. That is a remarkable gift provided by members to their peers. As a recipient of this gift, you can thank the content providers who give of themselves for your benefit.

IP networking, drone operation, RF safety, and tower maintenance are upcoming subjects for webinars. If you want unlimited access to this valuable pool of knowledge that is available 24/7, upgrade your membership to SBE MemberPlus.

The SBE WEBxtra is another initiative by the SBE to invest in the future. Launched in January 2019 to act as a chapter of the web for SBE members, part of its objective is growing and retaining membership, attract-

ing new and younger members to the SBE, and increasing 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 1/2 point in category G (attendance), just like attending a local chapter meeting. The SBE WEBxtra is streamed live on the SBE YouTube Channel. The feed typically begins a few minutes before the start of the show.

In a recent SBE WEBxtra, Dr. Barry Blessner, a technical and management consultant challenged viewers to consider the question, "What do you think is worth doing?" This question lead us to consider where we wanted our careers to go. It was a valuable and thought-provoking broadcast.

Finally, a way to invest in the future is to complete the 2021 SBE Compensation Survey. This is a voluntary sharing of information by members to assist each other. All replies remain anonymous. Although you may not be negotiating your specific salary, it can help you know the value that you bring to your organization. Your employer may need to know that as well. Finally, you may also be advising your employer on appropriate compensation for new positions. The survey results are free to SBE members as a member benefit.

We have to continue to create new and innovative ways to build and strengthen our community if SBE members are going to be recognized as the valuable part of the broadcasting industry that they are. If you have an idea that you believe would do that, please email me at jagsdale@sbe.org. I would love to hear from you.





ENGINEERING PERSPECTIVE

By RJ Russell, CPBE, ATSC3
SBE Frequency Coordination Manager
rjrussell@sbe.org

Tools for 2GHz Sharing With the DoD

As the Society of Broadcast Engineers continues to develop its relationship with the Department of Defense as co-primary users of the 2025-2110 MHz spectrum, tools are being created to make it easier for both parties to coordinate and cohabitate in this congested band. The first of these tools are a monthly update and a KML file showing activity in the band. The SBE is making these available via the SBE website under Frequency Coordination Tools (sbe.org > *Frequency Coordination* > *Frequency Coordination Tools*). These tools are a combination of extracted FCC license data and information provided by SBE local frequency coordinators.

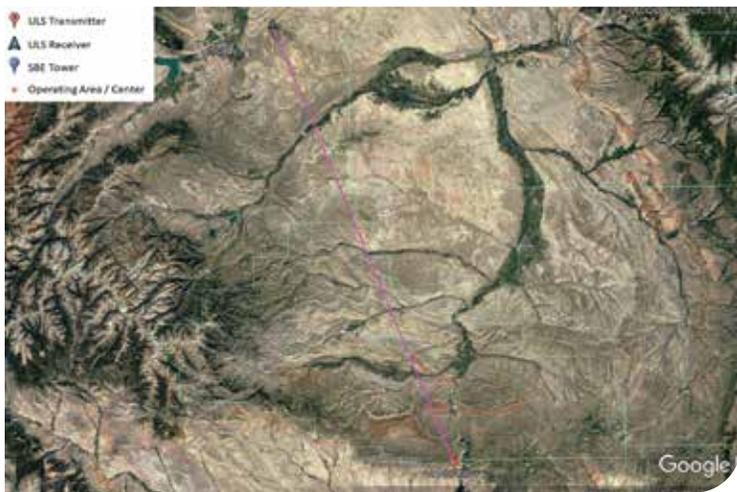


Figure 1. An example of the map information for a fixed-link license.

The first tool is a PDF document that will show any changes for the most current month. This is a concise report showing what has changed in the last 30 days and could be a culmination of both changes in the FCC database and any updated information provided by local coordinators. This monthly update will also note any changes in how the data is being presented in the KML file, such as new features and/or additional information that is available. It is best to think of this document as release notes for the KML file, the second tool that will be part of the monthly updates.

The KML file, supported by Google Earth, notes all known licensed users of the 2025-2110 MHz with data either provided by the FCC database, SBE local coordinators' databases, or both. The file will show all data available regarding that license. If it is a fixed link license, it will show the transmit and receive sites, clearly marked with different icons representing each end, and a line connecting them as shown in Figure 1.

If it is a mobile license, the file will note the operational area as defined by the FCC license as well as any registered receive sites as shown in Figure 2.



Figure 2. An example of a mobile license display with the map data.

We are hopeful that SBE local coordinators and our members will find these tools helpful and useful. Of course, these tools are only as good as the information that is used to build them. We encourage all our local coordinators and our general membership to review the data in these tools and let us know if something is not correct. Please feel free to send any data correction information to 2ghzdata@sbe.org and we will work with the licensee(s) and the builders of these tools to ensure it gets updated. Be sure to keep an eye on the Frequency Coordination pages as additional tools and information become available and are published.

Now Scheduling Ennes Workshops

As restrictions on in-person gatherings are reduced and vaccination rates increase, chapters can consider hosting an Ennes Workshop in 2021, or planning further ahead for 2022.

In a typical year, the Society of Broadcast Engineers and the Ennes Educational Foundation Trust present a number of one-day educational programs for broadcast engineers, called Ennes Workshops. These programs feature multiple topics and speakers that provide television and radio engineers with the nuts and bolts infor-

mation they need to do their jobs. An Ennes Workshop can serve as a highlight of your chapter's program year.

The SBE is currently scheduling Ennes Workshops through 2022. The cost to bring an Ennes Workshop to your area is typically shared through participant registration fees, sponsorships and chapter support. Some state broadcaster associations have also supported these programs financially, either as a part of an existing event or as a stand-alone event.

For more information on how your chap-

ENNES WORKSHOP

ter can host an Ennes Workshop for the broadcast engineers in your community, contact Education Director Cathy Orosz, at 317-846-9000 or corosz@sbe.org, or visit sbe.org/ennes_workshop.

sbe.org/ennes_workshop

NEW SUSTAINING MEMBER



AC Video Solutions • 2014
Andrea Cummis 201-303-1303
Consulting, Systems Design/Integration

American Tower Corporation • 2000
Tiffany Yu 603-930-9091
Development/Construction/Management

Audemat-Worldcast Systems Inc. • 2000
Christophe Poulain 305-249-3110
Control Manufacturer

Belden Electronic Division • 1991
Rose Lockwood 203-500-4743
Fiber and Copper Cabling Infrastructure

Blackmagic Design • 2012
Terry Frechette 408-954-0500
Production Switchers, Digital Cameras,
Routers, Video Editing and Monitoring, Color
Correction, Video Converters

Bracke Manufacturing LLC • 2012
Patra Largent 949-756-1600
RF & Microwave Components

Broadcast Depot • 2018
John Lackness 305-599-3100
TV, Satellite, Radio, IP

Broadcast Devices, Inc. • 2015
Robert Tarsio 914-737-5032
Audio/RF Support Products

Broadcast Electronics Inc. • 1978
Perry Priestley 217-224-9600
Radio Equipment Manufacturer

Broadcast Software International • 2016
Marie Summers 888-274-8721
Radio Automation, Audio Logging

Broadcast Supply Worldwide • 1986
Shannon Nichols 800-426-8434
Audio Broadcast Equipment Supplier

Broadcasters General Store • 2004
Buck Waters 352-622-7700
Broadcast Audio Video Distributor

Burk Technology • 2019
Jim Alinwick 978-486-0086 x7404
Transmitter Facility Control Systems

Calrec Audio • 2016
Helen Carr 703-307-1654
Audio Mixing Equipment

Canon USA Inc. • 1985
Larry Thorpe 201-807-3300, 800-321-4388
Broadcast Lenses & Transmission Equipment

Cavell, Mertz & Associates Inc. • 2011
Gary Cavell 703-392-9090
Consulting Services

Comrex Corporation • 1997
Chris Crump 978-784-1776
Audio & Video Codecs & Telephone
Interfaces

Continental Electronics • 1976
Dale Dalesio 412-979-3253
TV and Radio Transmitters

Crawford Broadcasting Company • 2021
Cris Alexander 303-481-1800
Media Company

CueScript • 2014
Michael Accardi 203-763-4030
Teleprompting Software & Hardware

Davicom, Division of Comlab, Inc. • 2014
Louis-Charles Cuierrier 418-682-3380 x512
Remote Site Monitoring and Control Systems

Dialight Corporation • 2006
David Jennings 732-919-3119
FAA Certified Obstruction Lights

Dielectric • 1995
Cory Edwards 207-655-8131
TV & FM Transmission & Cellular Products

Digital Alert Systems, LLC • 2005
Bill Robertson 585-765-1155
Emergency Alert Systems

DoubleRadius, Inc. • 2012
Jeffrey Holdenrid 704-927-6085
IP Microwave STL

Drake Lighting • 2015
Dave Sheppard 270-804-7383
FAA Obstruction Lighting - Medium and High
Intensity

DTS Inc./HD Radio Technology • 2014
George Cernat 443-539-4334
HD Radio Technology

du Treil, Lundin & Rackley, Inc. • 1985
Jeff Reynolds 941-329-6000
Consulting Engineers

The Durst Org. - 4 Times Square • 2004
212-997-5508
TV/FM/Microwave Tower Site

DVEO - Division of Computer Modules Inc. • 2011
Laszlo Zoltan 858-613-1818
Everything About Transport Streams

Econco • 1980
Debbie Storz 800-532-6626, 530-662-7553
New & Rebuilt Transmitting Tubes

ENCO Systems Inc. • 2003
Samantha Bortz 248-827-4440
Playout and Automation Solutions

ERI - Electronics Research • 1990
Zachary Bailey 812-925-6000
Broadcast Antennas, Transmission Line,
Filters/Combiners, Towers and Services

Floral Systems • 2008
Shawn Maynard 877-774-1058
Television Broadcast Automation

Fujifilm/Fujinon • 1986
Gordon Tubbs 973-686-2769
Broadcast & Cine Lens Products

Heartland Video Systems, Inc. • 2011
Dennis Klas 920-893-4204
Systems Integrator

Hilights, Inc. • 2016
Timothy Nash 352-564-8830
Obstruction Lighting Maintenance

Hitachi Kokusai Electric Comark • 2013
Jack McAnulty 413-998-1523
Manufacturer Broadcasting Transmission
Equipment

iHeartMedia, Inc. • 2019
Troy Langham 918-664-4581
Radio Group Owner

Indiana Broadcasters Association • 2019
Dave Arland 317-701-0084
Indiana Association for Radio & TV
Broadcasters

Inovonics Inc. • 2012
Gary Lührman 831-458-0552
Radio Broadcast Equipment

JAMPRO Antennas Inc. • 2011
Alex Perchevitch 916-383-1177
DTV, FM-HD Radio, DVB-T/T2, ISDB-T, DAB

JVC Professional Video • 2014
Edgar Shane 973-317-5000
Professional Video Products, Camcorders,
Display Monitors, Recording Decks

Kathrein USA Inc. • 1985
Les Kutasi 541-879-2312
Antennas for Broadcasting &
Communications

Kintronc Labs, Inc. • 2015
Joaquin Raventos 423-878-3141
Radio Broadcast Antenna Systems - ISO9001
Registered Company

LBA Technology Inc. • 2002
Javier Castillo 252-757-0279
AM/MW Antenna Equipment & Systems

Linkup Communications Corporation • 2017
Mark Johnson 703-217-8290
Satellite Technology Solutions

LYNX Technik • 2007
Steve Russell 661-251-8600
Broadcast Terminal Equipment Manufacturer

Markertek • 2002
Adam June 845-246-2357
Specialized Broadcast & Pro-Audio Supplier

Micronet Communications Inc. • 2005
Jeremy Vize 972-422-7200
Coordination Services/Frequency Planning

Microwave Video Systems • 2011
Warren J. Parece 781-665-6600
Microwave Equipment Rental, Sales & Service

Moseley Associates Inc. • 1977
Bill Gould 805-968-9621 x785
Digital STLs for Radio and Television

MulticAM Systems • 2020
Mary Ann Seidler 207-776-5338
Fully automated live video production

MusicMaster • 2014
Jerry Butler 352-231-8922
Advanced Music Scheduling Solutions

Nascar Productions • 2014
Abbey Kielcheski 704-348-7131
Live/Post Production Services

National Association of Broadcasters • 1981
Industry Trade Association 202-429-5340

National Football League • 1999
Michael Katzenoff 212-450-2368
Game Day Coordination Operations

Nautel Inc. • 2002
Jeff Welton 877-662-8835
Radio Broadcast Transmitter Manufacturer

Nemal Electronics Int'l Inc. • 2011
Benjamin L. Nemser 305-899-0900
Cables, Connectors, Assemblies and Fiber
Optic

Neutrik USA, Inc. • 2012
Kathy Hall 704-972-3050
Ruggedized Optical Fiber Systems

NPR Distribution Services • 2019
Dan Riley 202-513-2624
Your Content Delivery Partners

Orban Labs, Inc. • 2011
Mike Pappas 480-403-8300
Audio Processing AMFMTV

Pasternack Enterprises • 2001
Christine Hammond 949-261-1920
Coax & Fiber Products

Potomac Instruments • 1978
Zachary Babendreier 301-696-5550
RF Measurement Equipment Manufacturer

ProAudio.com - A Crouse-Kimzey Co. • 2008
Mark Bradford 800-433-2105 x560
Proaudio Broadcast Equipment Distributor

Propagation Systems Inc. - PSI • 2010
Doug Ross 814-472-5540
Quality Broadcast Antenna Systems

QCommunications • 2019
Tony zumMallen 816-729-1177
Services Behind the Scenes

Quintech Electronics and Communications Inc. • 2002
James Herbstritt 724-349-1412
State-of-the-art RF Hardware Solutions

QVC • 2011
Kevin Wainwright 484-701-3431
Multimedia Retailer

Radio Frequency Systems • 2015
David Zack 815-478-3240
Antennas, Transmission Line, Filters &
Combiners

Rohde & Schwarz • 2003
Walt Gumbert 724-693-8171
Transmitters, Test & Measurement, Video

Ross Video Ltd. • 2000
Jared Schatz 613-228-0688
Manufacturer, Television Broadcast
Equipment

Sage Alerting Systems Inc. • 2010
Harold Price 914-872-4069 x113
Emergency Alert Systems Products

SCMS Inc. • 2000
Bob Cauthen 800-438-6040
Audio and RF Broadcast Equipment Supplier

Seacomm Erectors, Inc. • 1997
John Breckenridge 360-793-6564
Tower/Antenna Erections

SEG • 2014
Chris Childs 913-324-6004
Supply Chain Products and Services

Shively Labs • 1996
Dale Ladner 888-SHIVELY
FM Antennas & Combiners

Shure Incorporated • 2012
Bill Ostry 847-600-6282
Microphones, Wireless Systems, Headsets

Sierra Automated Systems and Eng. Inc. • 2011
Al Salci 818-840-6749
Routers, Mixers, Consoles, Intercoms

Solid State Logic • 2014
Steve Zaretsky 212-315-1111
Digital Audio Mixing Consoles, Networked
Audio Routing, Embedded Audio Solutions

Staco Energy Products Co. • 2010
Paul Heiligenberg 937-253-1191 x128
Manufacturer of Voltage Regulators, UPS

SuitLife Systems • 2019
Nigel Brownnett 310-405-0839
Manage. Monitor. Control

Sutro Tower Inc. • 1989
Raul Velez 415-681-8850
Broadcast Tower Leasing

Synthax Inc. • 2020
Derek Badala 603-591-6735
Audio Codecs and Converter Solutions

Technical Broadcast Solutions, Inc. • 2018
Robert Russell 215-983-0855
Engineering and Consulting Services

Telos Systems/Omnia/Axia • 2003
John Bisset 216-241-7225
Telos Systems Talk-Show Systems

Teradek • 2011
Jon Landman 949-743-5783
Camera-top ENG Solutions

Tieline The Codec Company • 2003
Dawn Shewmaker or Jacob Daniluck 317-845-8000
Audio Codec Manufacturer

Unimar Inc. • 2001
Thad Fink 315-699-4400, 813-943-4322
Tower Obstruction Lighting Designer,
Manufacturer, Distributor

Wheatstone • 2010
Jay Tyler 252-638-7000
IP Consoles, Routers & Processors

WideOrbit • 2012
Jim Hammond or Brad Young 415-675-6700
Radio Automation and Playout

Wireless Infrastructure Services • 2006
Travis Donahue 951-371-4900
Repacking Services - West Coast Turnkey
Services

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More Years of Membership
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Member Spotlight: Kurt Sutton

Member Stats

SBE Member Since: 2017
Chapter: 86 Greenville, SC
Employer: Clemson University Athletics
Position: Director of Broadcast Engineering
Location: Clemson, SC
I'm Best Known For: Being an efficient multi-tasker. In college athletics, there are so many different plates spinning all at one time. It's vitally important to keep multiple control rooms on the air broadcasting multiple different events simultaneously, not to mention supporting those venues.



Kurt enjoys some time with Sadie.

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

A. I love being involved with an organization that values the many resources and knowledge available to an up-and-coming engineer like myself. I'm still trying to get more involved and network more with my fellow SBE members.

Q. What got you started in broadcast engineering?

A. I love being a problem-solver. Being a broadcast engineer is the ultimate problem-solving job that is right on the edge of technological innovation.

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

A. I got my start as a broadcast engineer under George Hopstetter and Howard Lacer at WTIU/WFIU in Bloomington, IN. I owe much of my knowledge and skills to their tremendous guidance and support. They supervise a great engineering team.

Q. What do you like most about your job?

A. The schedule is always busy and the job constantly evolving. Working in college athletics keeps the calendar packed with events. Being on the cutting edge of technology means I am always doing research into new equipment and learning new skills.

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

A. ...am either playing with my dog, Sadie, or trying to wrangle my newborn daughter, Quinn. I try to get some golf in when time permits, which isn't often at the moment. The 2021 spring sport season is keeping all of us busy in college athletics.

Tough Times? Hardship Waiver Extends SBE Membership

A waiver can be granted for those members who qualify

SBE members who have been laid off or lost their jobs through no fault of their own can apply for a hardship waiver of their annual SBE dues for one year (through March 31, 2022). Using a waiver to maintain your membership will keep you connected when you need it most. You'll continue to have access to the members-only SBE JobsOnline and SBE Resume Bank services, *The Signal*, the SBE Compensation Survey results, and discounts on SBE services and books. SBE MemberPlus members will continue to have access to SBE webinars at no cost.

To apply for a waiver, contact Executive Director Jim Ragsdale at jagsdale@sbe.org and provide a statement of the circumstances for the waiver request. The statement must include a brief description of

the circumstances that have caused you to become unemployed or experience a significant reduction to your income. To be eligible for a waiver, applicants must have been a member of SBE since at least April 1, 2020, and have not received more than one waiver in the past. The SBE membership waiver program is supported through financial contributions from SBE members.



Lifelong Dedication to the SBE and Certification

The SBE was founded in 1964, and the SBE Program of Certification was established in 1975. While the SBE national efforts have several champions who are credited with launching the society and its various programs, it's long been held that the success of the SBE lies in the service and efforts of members on the local chapter level. On May 9, the SBE lost one of these champions.

William J. Kozel II, CSRTAVE, CBNT, born on Feb. 12, 1949, joined the SBE on May 12, 1976. He became the SBE Chapter 70 Northeast Ohio Certification Chair in 1979, and continued to serve the chapter until his death. That's 45 years of continuous membership, and 42 years of continuous chapter service. Bill has the second-longest service record as a chapter

certification chair.

Jim Arcaro, CPBE, another Chapter 70 veteran, sat with Bill to proctor many exams. Jim is taking over the responsibility for the chapter.

Through a laborious records search, it could be determined how many SBE certification exams Bill proctored during his service. It's easy to speculate that the number is quite high.

His unique certification designation is the result of him earning his Senior Radio Engineer, Senior TV Engineer, Audio Engineer and Video Engineer certifications before the current standards were put in place.

Bill's dedication to broadcasting also showed in his career. He worked for Cleveland station WEWS-TV for more than 25 years.



Photo: In 2018, Bill (right) received the Chapter 70 Engineer of the Year Award. Chapter Chair Blake Thompson presented him with the award.

WELCOME TO THE SBE

NEW MEMBERS

Michael G. Abouriali - Buena Park, CA
Israel J. Alejandro - Allentown, PA
Paul E. Ball - Bakersfield, CA
Rick Basu - Roanoke, VA
Edwin R. Bowers - Boulder, CO
Matthew Brown - Casper, WY
Nathan D. Brown - Erie, PA
Morgan R. Bunch - Melbourne, FL
Michael W. Byer - Asheville, NC
David C. Caban - Lyndhurst, OH
Stephen Cardwell - Michigan City, IN
Charles D. Cazares - Brookshire, TX
Chris Cobb - Tyler, TX
Clinton Cook - Dallas, TX
Henry J. Crsuh - Allentown, PA
Dennis Davidson - Rochester, NY
Michelle A. Davies - Buffalo, NY
Craig W. Denton - Colorado Springs, CO
Michael D. Devous - McKinney, TX
Michael L. Dewey - Omaha, NE
Eric M. Dickens - Pulaski, VA
Sean Diviney - Chevy Chase, MD
Todd Donaldson - Evansville, IN
Tom R. Downes - Chester Springs, PA
Samson C. Eke - Victoria Island, Lagos
Chris Evans - Greenville, SC

Jeff C. Eyer - Albany, NY
Vince R. Forcier - Falls Church, VA
Joshua Ford - Lancaster, PA
Gaylord R. Foster - FPO, AE
Jack Gilbert - Charleston, WV
Ilir Hamiti - Pristina, Kosovo
Peter G. Hamlett - Cayce, SC
Patrick J. Harris - Olney, MD
Michael L. Haynes - Charleston, WV
David D. Hicks - Charleston, SC
Randi L. Hyden - The Woodlands, TX
Jonathan R. Iler - Rincon, GA
Craig Keefer - Lancaster, PA
Douglas J. Kenyon - Grand Junction, CO
Michael P. Kernen - Macomb Twp., MI
James Kettner - Kearney, NE
Graham P. King - Cambridge, MA
Steven F. Kohler - Lancaster, PA
Jesse J. Lectura - Astoria, NY
Daniel A. Lira - Los Angeles, CA
Aaron R. Loaiza - Canyon Country, CA
Vahid Maheri - Playa Del Rey, CA
Nate Maurer - Lancaster, PA
Anna Marie McCabe - NY Mills, NY
Robert McCloud - Buffalo, NY
Eric S. McConnell - Kilgore, TX
Jon Mellinger - Buffalo, NY

Randy Mills - Clinton Corners, NY
Richard Monn - Maitland, FL
James B. Moore - Cedar City, UT
Sarah R. Mueller - St. Cloud, MN
Kendall L. Myers - Terre Haute, IN
Molly North - Albany, NY
Steve Patterson - Albany, NY
Joseph Petroni - Irving, TX
Mark Pietrzak - Lombard, IL
Brian L. Polge - Syracuse, NY
Matthew W. Prenger - Jefferson City, MO
Michael P. Ranweiler - Yacolt, WA
Kyra E. Ringer-Remour - Navarre, FL
John Rooney - Terryville, CT
Mark Rothenberger - Mountville, PA
Christopher J. Sannuto - Lake Ronkonkoma, NY
Graham G. Schaefer - Fort Bragg, NC
Daniel A. Schultz - Indianapolis, IN
William R. Seabrook - Dunkirk, MD
Benjamin H. Shaw - Daly City, CA
Bill Sigler - Charleston, WV
Mark P. Smith - Wheat Ridge, CO
Jerrold L. Taylor - Jacksonville, FL
Yuri Terleckyj - Washington, DC
Zeron Turlington - Atlanta, GA

RETURNING MEMBERS

Raymond Beckner - Charleston, WV
Rusty W. Burchfield - Bakersfield, CA
Dennis J. Christensen - Sparks, NV
Richard J. Dalton - Lynnwood, WA
Shawn D. DeWeerd - Granger, IN
Kenneth S. Doughty - Porter, TX
Aaron Farnham - Bountiful, UT
Michael F. Forde - Georgetown, Guyana
Stephen Frick - North Pole, AK
Fletcher Garrett - Irving, TX
Richard J. Gerlovich - Sugar Land, TX
Michael G. Hackett - New Orleans, LA
Michael D. Hutchens - Evansville, IN
Paul R. Jellison - Wilmington, OH
Kasey Johns - Austin, TX
Michael J. Klebak - Virginia Beach, VA
David Liu - South San Francisco, CA
Michael Maciejewski - Grand Rapids, MI
Kelli McMillan-McKowan - Lancaster, NY
Rashonna V. Moore - Oklahoma City, OK
Richard L. Mulliner - East Williston, NY
Emir Onat - Portland, OR
Don A. Pettifor - Goshen, IN
Jessica A. Rye - Bend, OR
Garth J. Sims - Clio, MI
Charles A. Spivey - Louisville, KY
Kenneth J. Stiver - Amherst, NY
Ron Taylor - Columbus, OH
April R. Tessmer - Austin, TX
Gregory V. Townsend - Dolton, IL
Robert L. Tweed - Cuyahoga Falls, OH
Alex G. Voss - Farmers Branch, TX
David A. Waltman - Bend, OR
James B. White - Kennewick, WA
Jason P. Yaser - Evansville, IN

NEW STUDENT MEMBERS

John C. Belfi - Boone, NC
Kody K. Conaway - Greenwood, IN
Michael Olinger - San Francisco, CA
Andrej Szabo - Calgary, AB Canada
Ace S. Wheeler - Puyallup, WA

NEW ASSOCIATE MEMBERS

Dhananjay Agrawal - Fremont, CA
Matthew G. Alexander - Charlotte, NC

RETURNING ASSOCIATE MEMBERS

Scott A. Burch - Sugar Land, TX

NATIONAL MEETING, from p. 1

The SBE at the NAB Show

The annual SBE Ennes Workshop is a part of the Broadcast Engineering and IT Conference, and it is slated to be held Saturday morning, Oct 9. The popular SBE Ennes Workshop is a kick-off to the BEITC, and we're proud to continue this tradition. The program details are being assembled and will be announced when they are ready.

The SBE expects to once again have an exhibit booth at the convention. While the exact location is being determined, all our in-person services will be available. A selection of books from the SBE Bookstore and merchandise from the SBE Store will be displayed. You can also get more information on all SBE services, programs and products from the SBE office staff and the SBE elected officers and directors who will be on-site.

The NAB Show is always an ideal opportunity for SBE committees to gather and discuss business. While the convention days and times have shifted from previous years, the exact times, days and locations for many of these meetings are still being determined. These meetings are currently planned to be held: SBE Board of Directors fall meeting, SBE Certification Committee meeting, SBE Education Committee meeting, SBE Frequency Coordination Committee meeting, and SBE frequency coordinators meeting.

The SBE offers a certification exam session at the convention. This is still in the plans, and time and location are being determined.

SBE National Meeting

The annual SBE National Meeting is held in the fall, and for many years has partnered with a regional event, such as those held in Syr-



The SBE Membership Meeting and Awards Program will spotlight the newest SBE Fellow, SBE Certification Director Megan Clappe.

acuse, Columbus and Madison, WI. With the NAB Show being held in the fall, the SBE will hold its National Meeting events in Las Vegas.

The highlight of the National Meeting is the SBE Membership Meeting, which provides an update on SBE activities and the induction of the new officers and directors for the coming year. The meeting will again add the Awards Program to recognize the various SBE National Award recipients, such as the Robert W. Flanders SBE Engineer of the Year and the James C. Wulliman SBE Educator of the Year. Other individual and chapter awards will be recognized, and the newest SBE Fellow, SBE Certification Director Megan Clappe, will be honored.

The Membership Meeting and Awards Program will be followed by the SBE Member Reception. Both events will likely be held on Monday, Oct. 11. Watch for the official announcement for the details as the convention approaches.

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MEMBERS ON THE MOVE



◀ **Tony Abfalter**, director of engineering/IT for Leighton Broadcasting with stations based in Minnesota and North Dakota, received that company's MVP Award for 2020

for his work in preparing the company to continue operations during the Covid shutdown.

▶ **Paul Claxton**, CPBE, CBNE, Chapter 131 Inland Empire certification chair and past chapter chair, is retiring from the American Forces Network Broadcast Center and relocating to Michigan.



B+C and TV Technology presented their 2021 Technology Leadership Awards, which included ▶ **William T.**



Hayes, director of engineering & technology, Iowa Public Television, Johnston, IA; and ▶ **Cindy Hutter Cavell**, vice president, Cavell, Mertz and Associates, Manassas, VA, among the 11 recipients.

▶ **David Antoine**, CBRE, CBNT, was named chief technology officer of WBGO, Newark Public Radio, Newark, NJ.



MARK YOUR CALENDAR

S	M	T	W	T	F	S
SBE Certification Exams June 4-14, 2021			Local Chapters sbe.org/certification			
Application deadline closed						
SBE WEBxtra June 21, 2021			online sbe.org/webxtra			
SBE WEBxtra July 19, 2021			online sbe.org/webxtra			
TAB Convention & Trade Show Aug. 3-4, 2021			Austin, TX tab.org			
SBE Certification Exams Aug. 6-16, 2021			Local Chapters sbe.org/certification			
Application deadline June 11, 2021						
SBE WEBxtra Aug. 16, 2021			online sbe.org/webxtra			
Broadcasters Clinic Sept. 8-10, 2021			Madison, WI wi-broadcasters.org			
SBE WEBxtra Sept. 20, 2021			online sbe.org/webxtra			

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

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