

THE Signal

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Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

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SBE Adds MemberPlus Option for Members

An important membership enhancement option will soon be available with the introduction of SBE MemberPlus. The Board of Directors of the Society of Broadcast Engineers adopted the new member benefit during the SBE National Meeting in Denver on Oct. 25. It will be available beginning January 2, 2018.

SBE MemberPlus provides significant additional educational benefits for the member who chooses this option at renewal time, or when joining the SBE. It has a higher cost, but the value in return will be well worth it to anyone who wants to take advantage of the many educational webinars the SBE has available.

Traditional membership, with relatively low dues, will still be available and there has been no change to the benefits it affords. They include SBE print and electronic publications, SBE Alerts and Updates, social media outlets, job listings, compensation survey results and access to group life insurance at no additional cost. It also provides members with discounts for SBE certification, education programs and purchases at the SBE Bookstore. The cost of annual Regular, Senior and Associate membership will be \$85 beginning January 2.

The SBE MemberPlus option, for \$175 per year, will provide each member with unlimited access to the entire archived cata-

logue of SBE webinars, plus, all new webinars produced during the membership year. When the SBE MemberPlus option becomes available on January 2, there will be 61 archived webinars available, including the popular eight-part SBE RF101 series, the five-part Fundamentals of IT Networking series, both released this year, and many more.

To recap, for an additional cost that is less than the price of two SBE webinars, those who choose the SBE MemberPlus option will have access to a wide variety of broadcast technical, regulatory and safety educational topics for the entire membership year. Many of which can be used for SBE recertification credit.

Details about SBE MemberPlus are available at the SBE website, including a Q&A section. For more information, please email SBE Executive Director John Poray at the national office at jporay@sbe.org or call him at 317-846-9000.



Chapters, AVX Shine Hosting SBE National Meeting

The successful SBE National Meeting was held in Denver, CO in conjunction with the Rocky Mountain Audio/Video Expo (AVX) on Oct. 25-26. SBE Chapter 48 of Denver was the local SBE host.

Approximately 1,000 people attended AVX and a good portion of them were broadcast media engineers. Most were from Colorado but others came from across the country to receive awards, take part in the fall meeting of the SBE

Board of Directors or just to attend the technical sessions and tour the exhibits.

Our thanks to Chapter 48, and Chairman Shane Toven, CBRE, CBNT, for their support.

The SBE Annual Membership Meeting, webcast live, is one of the key events of the SBE National Meeting. Outgoing SBE President Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT, led most of the meeting, which included reports from SBE officers and several committee chairs, presentation of membership recruiting awards and the induction of the 2017-18 officers and six board directors. It also included a special Q&A session with NAB VP of Spectrum Policy Robert Weller about spectrum issues important to broadcasters.

In his closing comments, President Massey announced a new, optional membership that adds additional value, called SBE MemberPlus. He also announced that the SBE would hold a strategic plan-

ning conference in June 2018 focused on SBE membership of the future.

Jim Leifer, CPBE, of Andover, MA, was sworn in as the 30th president of the SBE and briefly outlined his goals for the coming year.

Other officer inductions included Jim
see [MEETING](#), p. 14



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

Plan Now to Attend the 2018 Leadership Development Course

Since 1997, the SBE has presented the SBE Leadership Development Course, which was first taught in 1965. The National Association of Broadcasters sponsored the course from 1965 to 1995. This



Leadership Development Course class of 2017.

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

The SBE course is taught by Rodney Vandever, a professional leadership and management trainer and a professor of organizational leadership and supervision at Purdue University.

Leadership has two different meanings that will be explored. First, leadership is the catalyst that transforms potential into a new reality yielding positive results. As a leader, you can be the catalyst to help bring about needed change in yourself, others and your organization. Secondly, leadership is the art and science of get-

ting the job done through the willing efforts of others. The key point is that leadership is both an art and a science. This course explores both meanings.

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

Course plans are being finalized, but the event is expected to be held Aug. 7-9 in Atlanta. Registration will be available at sbe.org/ldc or by contacting the National Office.



Certification Question

Answer on page 6

An AM station operating on 1070kHz has a two-tower directional array. The two towers are separated by 120 electrical degrees. The tower separation in feet is:

- A. 306
- B. 918
- C. 280
- D. 120



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LETTER FROM THE PRESIDENT

By Jim Leifer, CPBE
SBE President
jleifer@sbe.org

Here's to What's Ahead

As your new president, I want to share some of the many exciting things the SBE plans for the next year. There's a lot to cover, so I thought I would highlight some of the more exciting happenings.

First, I want to thank all the directors and SBE staff for their service this coming year. I am humbled to be with such a group of people.

At the SBE National Meeting in Denver, the SBE Board of Directors approved the SBE MemberPlus program. This brings a new choice to SBE members. I personally look forward to having my SBE MemberPlus option that will give me access to all the Webinars by SBE for one price.

The board of directors also approved a strategic planning meeting to be held in June 2018 in Indianapolis. This will allow the leadership of the SBE to see where we have opportunities to recruit new members and offer more to our current membership. As the 30th SBE president, I look back at how we have changed in our work lives and how the SBE has changed. The best part of our career paths is that while change is difficult, we have all had

to face constant change. The society also has changed. It is exciting to see where we have been, and what is ahead for us in the next decade.

Today, we are heading into another re-pack. This will affect many of our FM and TV engineers. Didn't we just do this a decade ago? Well, we are doing it again. I look forward to meeting the challenges of this effort while working with you. I know that together we can see this through and keep content moving along.



I have spent the last few weeks at several regional conventions, and I was pleased to see the exhibit halls and session rooms filled with SBE members. I can say that the state of our society is strong, and our membership is stable. SBE Ennes Workshop attendance is up from last year. Webinars by SBE are seeing record attendance. The SBE is experiencing growth in many areas.

While our demographics may be aging, we have finally begun the conversation of how to mentor and train the new broadcast engineer and to provide additional training to the current engineer. Several

companies have started programs to address the shortage of multimedia professionals, and while we need more, it seems that progress is being made. I will work with all the broadcast companies to bridge this gap. I know our board of directors look forward to being that education tool for our industry.

Finally, I wanted to thank you for your support and I look forward to seeing you at a SBE chapter meeting or Ennes Workshop in the coming months.

SBE Dues to Increase January 1

The SBE Board of Directors has approved a dues increase for most members that will take effect on Jan. 1, 2018. Dues for individual members in the Regular, Senior, Associate and Fellow categories will increase \$3 to \$85 per year. Dues for Student (\$25) and Youth (\$10) members will not increase.

"The increase is needed to keep the society's finances in sound shape," said SBE President Jim Leifer. Leifer also said, "We continue to do a good job at managing expenses, but like any business, our basic operational expenses increase each year."

Dues from individual members account for about 41% of SBE annual revenue and another 10% comes from Sustaining Member (corporate) member dues. The remaining 49% comes from non-dues sources including educational courses, certification fees, book sales, and other areas. Leifer said, "We are fortunate to have other non-dues sources of revenue in addition to dues to help us meet our needs."

The Board also approved the SBE MemberPlus membership option. For \$175 per year, members who choose this enhanced membership option will have access to the entire SBE educational webinar catalogue at no additional cost. Currently there are 61 webinars available and more will be produced in 2018. All of these will be available under the MemberPlus option. More information about SBE MemberPlus can be found in this issue of *The Signal*.

The Board approved an increase in Sustaining Member dues to \$750 per year, which also goes into effect on Jan. 1, 2018.

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EDUCATION UPDATE

By Wayne M. Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
Chairman, SBE Education Committee
wpecena@sbe.org

But I Have a Firewall

Informational technology (IT) security has traditionally relied upon anti-virus software for host protection and the firewall for broader network infrastructure protection. The firewall has become the traditional approach to network security and remains a critical component of a network security plan, but some caution should be kept in mind as simply having a firewall often creates a false sense of security.

A firewall is simply a packet filter. Individual IP packets are examined with a decision made to permit or deny based on a pre-defined rule set. The rule set presents the first area of caution as the set established six months ago might not be valid today as the network environment has likely changed. Changes occur in the number of hosts within the network as well as updates of host devices causing default configurations to be enabled. Firewall activity should be actively monitored to understand what packets (source) are being denied or permitted. A grasp of normalcy for a network is important to detecting abnormal operation. Often a sudden increase in network traffic without a change of business practice can indicate compromised host(s) within the network infrastructure.

Firewalls can exist in several form factors from software supporting only a single host device to a hardware/software build creating a stand-alone appliance supporting a network of individual host devices. Firewalls can be categorized into one of two generic types: stateless or state-full. The stateless firewall is the simplest form of implementation with a fixed rule set. The use of an Access Control List (ACL) applied to a border router interface performs the function of a stateless firewall. A permit-or-deny decision is made on a packet-by-packet basis from the rule set. The state-full firewall maintains an awareness of a TCP/IP connection between an internal and external host by means of a state table and dynamically instructs the firewall to permit the return path from the external host. The second area of concern is that the firewall has no insight into the actual payload of the IP packet it processes. The firewall solely utilizes header information such as source or destination IP addresses, source or destination port numbers, and protocol to make a permit-or-deny decision. As an example, a firewall could willingly permit IP packets whose payload might contain a Structured Query Language (SQL) injection or Domain Name System (DNS) threat.

Firewalls continue to provide a valuable line of defense, but more intelligent defenses are also required as the complexity of threats have increased. Firewalls have tended to provide a false sense of security over time as the threats imposed on an IP network have become more complex. According to the SANS Institute, a more sophisticated approach is required that combines the traditional firewall plus an Intrusion Prevention System (IPS), plus anti-virus/spam/malware content protection. The IPS incorporates Deep Packet Inspection (DPI) techniques allowing

the payload content of an IP packet to be examined. DPI can be a controversial topic, as advocates of net neutrality have found cause for concern. Regardless of concern, there is no dispute in the capability and effectiveness of using DPI in the ever-increasing network security efforts. The focus of DPI should be for security enhancement purposes and should not be used in user eavesdropping or internet censorship roles. In the past, this level of complex network security prevention has been reserved for the enterprise level network infrastructure due to the cost. However, the marketplace is rapidly changing as lower-cost solutions now exist.

Open source software such as Suricata (suricata-ids.org) and PFSense (pfsense.org) offer affordable platforms that incorporate the traditional firewall with IPS features.

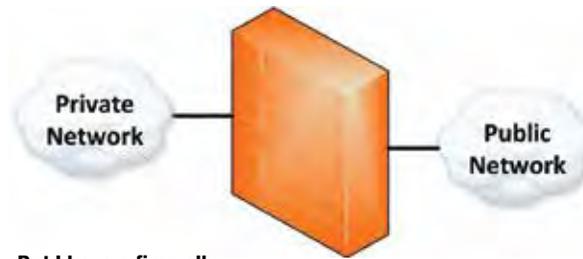
In summary, implement the following best practices in your broadcast IP network firewall implementation plan:

- Adopt a layered or segmented approach within your network with security policies for each layer.
- Monitor firewall activity – look for traffic pattern abnormalities.
- Review firewall rule sets on a routine basis.
- Adopt a deny-all or least privilege mindset - explicitly permit packets destined to critical host services.
- Specify host source IP addresses whenever possible.
- Use caution when permitting a range of ports – be as specific as possible.
- Don't overlook firewall egress or outbound packet filtering.
- Implement stateless and state-full firewall technology + IPS + anti-virus/spam/malware whenever possible.

The broadcast industry has migrated or is migrating to an information technology- (IT) dominated infrastructure, which has brought advantages and challenges. Maintaining a secure network environment is one of the major challenges faced by the broadcast network engineer today and in the future. The responsible engineer must adopt a mindset of on-going security practices to insure reliable performance of the new IP-based broadcast technical facility.

Plus There's More

You have likely seen the announcement about the SBE MemberPlus program beginning in January 2018. It provides you access to all SBE webinar events present and future throughout the year. Your SBE Education Committee wants to know your professional development needs. Provide your expertise and knowledge to your SBE colleagues through one of several education program delivery platforms. Lend your advice and guidance to the SBE Education Committee to help establish the right mix of content to meet the broadcast engineer's needs. Remember, continuous learning is a key trait of the successful technology professional and the SBE Education team is dedicated to bringing you quality professional development programs covering relevant broadcast industry topics delivered via mediums that meet your needs.



But I have a firewall...

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



CERTIFICATION UPDATE

By Rick Ryan, CPBE
Member, SBE Certification Committee
rickryan@wi.rr.com

SBE Certification: Frequently Asked Questions

As the local certification chair for Chapter 28 Milwaukee, and as a member of the National Certification Committee, I am often asked the same questions. The top two are "What is the passing score of a certification exam?" and "How many books can I use on the test?"

To help all chapter certification chairs and answer some common questions, we assembled a list of the most frequently asked questions and their answers. I hope that by having the answers to these questions, you will be more comfortable about the exam process and submit your application to become SBE-certified.

Q. What is the passing score for the various certification exams?

A. It depends on the specific exam.

Certified Television Operator (CTO): 90%
Certified Radio Operator (CRO): 90%

Certified Broadcast Technologist (CBT): 70%
Certified Broadcast Networking Technologist (CBNT): 70%
Certified Video Engineer (CEV): 70%
Certified Audio Engineer (CEA): 70%
Certified Broadcast Television Engineer (CBTE): 70%
Certified Broadcast Radio Engineer (CBRE): 70%

Some certifications require a passing score of 84 points out of a possible 120, which is a combination of the multiple-choice questions (up to 100 points) and the essay (up to 20 points). The essay portion must score at least 10 out of 20 points.

Certified Broadcast Networking Engineer (CBNE)
Certified Senior Television Engineer (CSTE)
Certified Senior Radio Engineer (CSRE)
8-VSB Specialist (8-VSB)
AM Directional Specialist (AMD)
Digital Radio Broadcast Specialist (DRB)

Q. What happens if I don't pass?

A. You can retake the exam for a \$30 fee as early as the next scheduled exam session. (Applicants are notified only of pass or failure of an exam. Scores are not provided to anyone.)

Q. How long will it be once I've taken the test before I know the results?

A. That answer varies depending on the type of test you have taken. An exam that doesn't include an essay question can be graded and the results sent back within a couple days of receiving it at the SBE National office. If there was an essay included with the exam, those grades may take longer. (The essays are sent to members of the National Certification Committee for grading.)

Q. Once I pass an exam, what then?

A. You will receive a card and certificate of certification in the mail. Your certification is valid for five years. The SBE will also notify your employer, or anyone else you designate, of your certification if you request at the time of application.

Q. How many books may I bring to the examination?

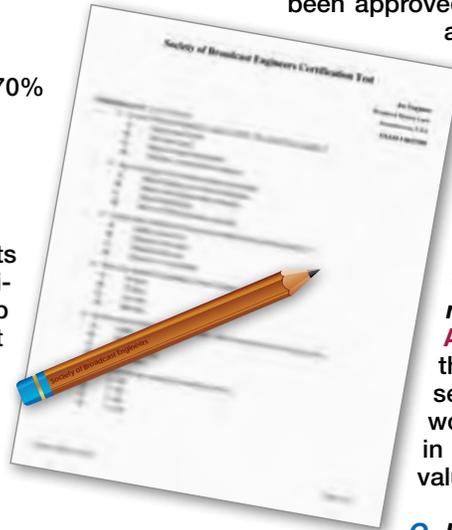
A. As many as you like, but remember they cannot be used during the essay portion of the senior, specialist or networking engineer exams. You may also take in any book that you think may be helpful for your exam, even if it does not appear on the suggested reference list.

Q. How about written notes?

A. You may utilize notes during the examination process. This was a recent change implemented by the certification committee.

Q. Are calculators and computers allowed during the test?

A. Yes, you may bring in a calculator or utilize your smart phone as a calculator. Beginning in April 2017, utilizing the internet has been approved for the certification exams. The applicant is responsible for procuring the internet feed. The internet allowance follows the same rules as the open-book policy, meaning that internet access is not allowed during an essay portion or operator exam.



Q. Will success in a certification test guarantee a pay increase for me?

A. Sorry, no one can guarantee that. However, you will be joining a select group that proclaims to the world that they believe in investing in their future and improving their value to their employees.

Q. How current are the exam questions?

A. They are reviewed by the Certification Committee at least two times per year. We make a significant investment to keep the questions aligned with current technology.

Q. How do I list my certifications?

A. Check out the certification chart on the SBE website under Certification to better explain how to list your certifications (sbe.org/certification).



Answer from page 3

The answer is A

The formula to determine this is:

$$\text{wavelength} = \frac{\text{velocity}}{\text{frequency}}$$

The velocity of light is 983,571,056 feet per second. Dividing that by 1,070,000 (in hertz) yields a wavelength of 919.23 feet. 120 degrees is 1/3 of a wavelength (360 degrees), so divide 919.23 by 3 to get 306.41, which rounds down to 306.

SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION

Certified Professional Broadcast Engineer (CPBE)
David Ohmstede, Newton, IA - Chapter 109
Jerry Shorter, Menifee, CA - Chapter 131

Certified Broadcast Radio Engineer (CBRE) AM Directional Specialist (AMD)
David Dybas, Buffalo Grove, IL - Chapter 26

Certified Broadcast Technologist (CBT)
Eric Melenbacker, Rochester, NY - Chapter 57
Dan Sessler, Newark, TX - Chapter 67

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 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.

AUGUST EXAMS

Certified Senior Radio Engineer (CSRE)
Ali Abdul-Sater, Eugene, OR - Chapter 76

Certified Broadcast Networking Engineer (CBNE)
Apurva Dave, Kingsville, TX - Chapter 69
Craig Fincher, Fort Worth, TX - Chapter 67

Certified Broadcast Networking Engineer (CBNE) (cont.)
Stephen Palau, Riverside, CA - Chapter 131

SPECIAL PROCTORED EXAMS

Certified Broadcast Radio Engineer (CBRE)
Kira Parker, Burlington, VT - Chapter 115

Certified Broadcast Technologist (CBT)
Joshua Ely, Boise, ID - Chapter 115
Christopher Hogan, Anniston, AL - Chapter 68

Certified Broadcast Technologist (CBT) (cont.)
Paul Parker, Manhattan, KS - Chapter 3

SBE CERTIFIED SCHOOL COURSE COMPLETION

Certified Broadcast Technologist (CBT)
Loyalist College
Kimon Kalemikeris, Toronto, Ontario Canada

CERTIFIED BY LICENSE

Certified Broadcast Technologist (CBT)
Ronald Castro, Petaluma, CA - Chapter 43

James Poulette, Dublin, NH - Chapter 110
Jimmy Willken, Corpus Christi, TX - Chapter 29

CERTIFIED TELEVISION OPERATOR (CTO)

Susan Conner, Midvale, UT
Kyle Davis, North Hollywood, CA
Alex Garcia, Monterey Park, CA
Richard Gonzalez, El Paso, TX
Charles Gray, Cape Girardeau, MO

Rick Katt, Cape Girardeau, MO
David Medow, Reno, NV
Kelsea Newton, Friendswood, TX
Gayle Saugstad, Vermillion, SD
Bryan Vincent Smith, Inglewood, CA

Dave Thum, Vermillion, SD
Jason Woods, Cape Girardeau, MO

Tribune Broadcasting
Hoyt Molina, Norfolk, VA
Catherine Read, Norfolk, VA

CERTIFIED RADIO OPERATOR (CRO)

Cave City High School
Michaela Allen, Evening Shade, AR
LeAnna Alps, Batesville, AR
Tristen Barnes, Cave City, AR
Austin Barnett, Cave City, AR
Rickey Bowden, Batesville, AR
Theodore Comer, Batesville, AR
Jonathan Cooper, Cave City, AR
Leah Crafton, Cave City, AR
Ruth Escoria, Batesville, AR
Sarai Escorcica, Batesville, AR
Heavyn Flynn, Evening Shade, AR

Jonathan Fuller, Evening Shade, AR
Samanth Fuller, Evening Shade, AR
Jacob Hightower, Evening Shade, AR
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Benjamin Johnson, Batesville, AR
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Oz Machugh, Batesville, AR
Brandon Manuel, Cave City, AR
Kenneth Moore, Batesville, AR
Katelynn Muston, Sodmeu, AR
Zachary Presser, Batesville, AR
Nicholas Pugh, Cave City, AR

Alysha Shetrone, Ash Flat, AR
Riley Smith, Cave City, AR
Katelyn Steltz, Batesville, AR
Samantha Steltz, Batesville, AR
Levi Timms, Cave City, AR
Hannah Tipton, Evening Shade, AR
Jackson Tipton, Cave City, AR
Maddison Verser, Evening Shade, AR
Alex Walker, Cave City, AR
Wynona Wells, Batesville, AR
Kyle Wilkins, Batesville, AR
Willie Ybanez, Cave City, AR

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)
Timothy Kelly, Columbus, OH - Chapter 52
Mark Quella, Watertown, MA - Chapter 11
Martin Stabbert, Reno, NV - Chapter 139
Joseph Tymecki, Fairfax, VT - Chapter 110
Certified Professional Broadcast Engineer (CPBE) 8-VSB Specialist (8-VSB) AM Directional Specialist
James Dalke, Bellevue, WA - Chapter 16
Certified Professional Broadcast Engineer (CPBE) Digital Radio Broadcast Specialist (DRB)
Barry Thomas, Denver, CO - Chapter 48
Certified Senior Radio Engineer (CSRE)
Ron Martens, Cordova, TN
Michael McCarthy, Woodridge, IL - Chapter 26

Certified Senior Television Engineer (CSTE)
Bill Soreth, Cockeysville, MD - Chapter 46
Certified Broadcast Networking Engineer (CBNE)
Rafael Aguilon, Murrieta, CA - Chapter 131
Barry Thomas, Denver, CO - Chapter 48
Certified Broadcast Television Engineer (CBTE)
Luke Howell, Denver, CO - Chapter 48
Jeffrey Martin, Bowling Green, KY - Chapter 103
George Randell, Nashville, TN - Chapter 103
Certified Broadcast Networking Technologist (CBNT)
Terri Connelly, Sanford, FL - Chapter 42
R. Allen Fowler, Murray, KY - Chapter 103
Randall Jones, Newman Lake, WA - Chapter 21
Victoria Kipp, Oregon, WI - Chapter 24
Roger Newton, Tulsa, OK - Chapter 56
Glen Tapley, Odenville, AL - Chapter 68

Certified Broadcast Technologist (CBT)
Nicole Alexander, Wildomar, CA - Chapter 131
Christopher Auker, Honolulu, HI - Chapter 63
Eugene Balossi, St. Louis, MO - Chapter 55
Randall Jones, Newman Lake, WA - Chapter 21
Michael "Andy" Keith, Helena, AL - Chapter 68
John Kemps, Napa, CA - Chapter 40
Phillip Lanier, Loganville, GA - Chapter 5
Eric Miller, Jenks, OK - Chapter 56
Certified Television Operator (CTO)
Susan John, Virginia Beach, VA
Miguel Romero, Los Angeles, CA
Certified Radio Operator (CRO)
Richard Frischkorn, Suring, WI

National Committee Chairs Named

SBE President Jim Leifer has appointed chairs of the various national committees for the coming year to oversee the activities of society functions. Contact them via the SBE website or the National Office.

Awards Jason Ornellas, CBRE, CRO
By-Laws Barry Thomas, CPBE, DRB, CBNE
Certification Ralph Hogan, CPBE, DRB, CBNE
Chapter Liaison Mark Fehlig, CPBE, 8-VSB, CBNT
Education Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
Fellowship Troy Pennington, CSRE, CBNT
Finance Marcelo Sanchez, CPBE
Frequency Coordination R.J. Russell, CPBE

Government Relations Dave Siegler, CPBE
International Charles W. Kelly Jr.
Membership Kevin Trueblood, CBRE, CBNT
Mentoring Kimberly K. Sacks, CBT
Nominations Justin "JT" Tucker, CSRE, AMD, CBNE
Publications Andrea Cummis, CBT, CTO
Social Networking Kirk Harnack, CBRE, CBNE
Sustaining Membership Stephen H. Lampen, CBRE



A. SBE General Counsel Chris Imlay (l) swears in Jim Leifer as the society's 30th president. **B.** Jim Dalke accepts the award for Best Technical Article, Book or Program. **C.** The winners and those accepting on their behalf of the chapter and some individual awards. **D.** SBE President Jerry Massey (l) at the conclusion of his term accepts his gavel and bound set of The Signal newsletters from Executive Director John Poray. **E.** NAB Vice President of Spectrum Policy Bob Weller (l) and President Jerry Massey hold a Q&A during the Membership Meeting. **F.** SBE President Jim Leifer gathers the SBE Fellows on stage to welcome the latest SBE Fellow members at the Awards Dinner. **G.** The SBE booth at the AVX, manned here by (l-r) Ralph Hogan, RJ Russell and Jerry Massey. **H.** Seven SBE presidents attended the Fellows Breakfast (l-r): Ralph Hogan, Chriss Scherer, Chuck Kelly, Joe Snelson, Vinny Lopez, Barry Thomas, Jerry Massey. **I.** Paul Montoya directs the live netcast of the SBE Membership Meeting. **J.** Kirk Harnack (c) with Angi Roberson (r) from Awards Dinner sponsor the Telos Alliance, says a few words before awarding the dinner prize. They are joined by SBE President Jim Leifer. **K.** Before the Awards Dinner, attendees gathered at a reception sponsored by Comrex. **L.** Tony Peterle (l) accepts the James C. Wulliman SBE Educator of the Year award from Jim Leifer. **M.** New SBE Fellow Bob Hoffman (r) accepts his plaque from Jim Leifer. **N.** New SBE Fellow Ted Hand (r) accepts his plaque from Jim Leifer. **O.** SBE Past President Joe Snelson (r) was given a special recognition by Jerry Massey for his SBE service during the Membership Meeting.

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LEGAL PERSPECTIVE

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

The Devil is in the Details

After almost 80 years, the FCC has eliminated the main studio rule. Broadcasters are no longer required to maintain any type of studio or office in their communities of license. A broadcast station need not maintain any employees whatsoever. The FCC is leaving it up to the judgment of broadcasters how best to operate and staff their broadcast stations. This is all good news, but what are the ramifications of this for broadcast engineers?

First, the basics: Broadcasters are still required to maintain a toll-free telephone number in the community of license so residents can communicate with the station's office – wherever that might be. Broadcasters will still need to present an adequate amount of community-responsive programming and provide evidence of that programming in their Quarterly Issues-Programs Lists. Broadcasters who have not yet created an online Public File and elect not to maintain any office or studio in the community of license must set up a Public File in the community until such time as the online Public File exists. This new policy presents a variety of questions that will be clarified over time, such as how a licensee/owner maintains control of its broadcast station if the station is time-brokered. There are likely to be subsequent policy announcements from the FCC related to the abolition of the main studio rule.

What will happen if there are changes in main studio locations on a large-scale basis? One obvious question is how many studio-to-transmitter links, STLs, and intercity relays will need to change? It is likely quite a few. If studios are to be relocated at some increased distance from the transmitters, will more ICRs be needed? Will there be longer STL paths? For television, what pressure will this put on the lower-frequency auxiliary bands used mostly for TV pickups, such as 2- and 7GHz? Will we see more fixed links at 2- and 7GHz because of the possible longer paths? What will that do to mobile ENG, given the sharing with DOD that is being arranged at 2GHz, and the 7GHz band that is now shared with fixed wireless backhaul and is being proposed for sharing with broadband? Experts I have spoken with recently think that the elimination of the main studio rule will result in much heavier use of the 950MHz aural STL band and increased pressure to put fixed links in the lower microwave bands, especially 7GHz, for television STLs. If your studios are being reconfigured now in response to the FCC's elimination of the main studio rule, don't forget to modify the STL, TSL and any ICR licenses that you have.

Meanwhile, in BAS

Speaking of increased pressure on BAS allocations, the comments are in on the FCC's so-called "mid-band, flexible use" notice of inquiry, Docket 17-183. Recall that this NOI asked for comments on potential opportunities for additional flexible access for wireless broadband services in the bands between 3.7- and 24GHz. Specifically, the FCC asked about three bands in particular, including the band 6.425-7.125GHz (which actually includes both the 6.5- and 7GHz BAS bands at 6425-6525 MHz and 6875-7125MHz). I am constantly impressed with comments filed in spectrum allocations rulemaking proceedings by the NAB, and its comments in this proceeding are very well done. Quoting from the NAB's comments in response to the NOI:

[T]he Commission should not seek to fit a square peg into a round

hole by allowing expanded operations that are technically incompatible with existing operations in a given band. Forcing fundamentally incompatible services to share a spectrum band will only undermine the value of the spectrum for those services by setting the stage for inevitable and harmful interference. We urge the Commission to carefully consider how expanded operations might coexist with incumbent users, and not simply to assume that technological fixes will materialize.

This is precisely the right message to the FCC's Office of Engineering and Technology. As every broadcast engineer actively using the 6.5- and 7GHz bands for mobile, itinerant ENG well-knows, there is no "flexible use" that can be made by wireless broadband in this band without preclusive interference to TV pickup operation in these two bands. It simply won't work. As evidence of this, the SBE and NAB can point to the exceptional difficulty that has been encountered in accommodating terrestrial Department of Defense facilities in the 2GHz ENG band. We are doing this, (very cooperatively and, I think effectively) but it has taken years, including days and days of field tests, and to get right. By contrast, there is no good way to allocate mobile wireless broadband on top of itinerant, mobile, unpredictable ENG operations in these important bands.

There are more than 140 comments in the mid-band NOI proceeding, and many of them express voracious interest in the 6.5- and 7GHz bands. Here is a summary of the position of a coalition of broadband companies and associations for that band:

The coalition has reached consensus that an NPRM should be opened expeditiously to establish rules for terrestrial broadband use of the 6425-7125 MHz band, as discussed above. However, some coalition members believe this band is best suited for unlicensed use, while other coalition members believe it is best suited for licensed use. To the extent that unlicensed operations are proposed, the NPRM should request information on a variety of mitigation mechanisms and associated detailed engineering analysis that will enable the Commission to conclude that the proposed operations will not cause harmful interference into incumbent services.

OK, fair enough. Let's see your engineering analyses. Beware though; the FCC didn't issue this NOI just to hear people talk about these bands. Expect a notice of proposed rulemaking, and sooner rather than later. And if we are putting more pressure on our own auxiliary allocations, we should be ready for other services to do the same thing.



In Memoriam

John J. Davis
Member #106
1933 - 2017

Charter Member
Senior Member



FOCUS ON SBE

By John L. Poray, CAE
SBE Executive Director
jporay@sbe.org

Planning for the Future and Adding Value to Your Membership

The SBE National Meeting in Denver held Oct. 25-26 included, as always, the fall meeting of the SBE Board of Directors. The full Board meets only in person twice each year, so the agenda for each meeting is usually full. This one was no different. I would like to share several items that were discussed and approved.

The Board approved to add a strategic planning conference to the 2018 calendar, to be held June 9 at the Hilton Hotel in downtown Indianapolis. SBE has typically held strategic planning meetings every six years and each of them have produced important new programs or a new emphasis for the society.

The 2018 edition will focus on the membership of SBE. Specifically, how changes in the industry are altering the demographics of the technical professionals who work in broadcast media and how those changes affect our membership. We will look at the broadcast media engineer of the future and discuss how the SBE must adapt to provide them with the educational and certification support to help them be successful in their careers.

The chair of each SBE chapter will be invited to attend the conference. Also attending will be the full national Board of Directors and national staff. A professional facilitator will lead the discussion.

Another important item the Board discussed during the meeting was to approve a new membership option called SBE MemberPlus. The aim is to bring more value to members and the SBE MemberPlus should do just that.

The SBE has accumulated a sizable library of quality broadcast technical webinars. Sixty-one SBE webinars are currently available covering radio and TV, IT, regulatory, safety and self-improvement topics. We have heard from some members that, as much as they want to take advantage of these educational resources, it can be cost prohibitive for them, or their employers.

SBE MemberPlus seeks to remedy

that. For annual member dues plus an additional cost that is less than the member price of two SBE webinars, opting for SBE MemberPlus will allow members to access the ENTIRE catalogue of SBE webinars, plus any new webinars produced during the membership year. Dues for those choosing the SBE MemberPlus option will be \$175. Members who would rather pay the traditional annual dues,



The SBE Board of Directors meeting in Denver at the SBE National Meeting.

which next year will be \$85, will still be able to do so, and pay for any webinars they choose on an ala carte basis as before.

SBE MemberPlus will be available beginning Jan. 2, 2018, to new member applicants. Current members will be able to select the MemberPlus option at renewal time, beginning in early February. Current members who do not want to wait for their renewal letter will be able to renew beginning January 2 and choose the SBE MemberPlus option.

More details can be found on the SBE website in the News & Headlines section. It includes a FAQ section that should answer most of your questions.

The Ennes Educational Trust, the non-profit charitable arm of the SBE, is governed by three trustees appointed by the SBE Board. One of those trustees, Leonard Charles,

CPBE, of Chapter 24, Madison, WI, recently resigned, a decision coinciding with his recent retirement from a long and successful career in broadcast engineering.

To fill the vacancy, the SBE Board has appointed Tony Peterle, CPBE, of Chapter 53 in Miami. Tony is with Worldcast Systems and has been a familiar presenter in our Ennes Workshops for the past five years. He was also this year's recipient of the James C. Wulliman SBE Educator of the Year. Tony joins trustees Fred Baumgartner, CPBE, CBNT, of Elizabeth, CO and Doug Garlinger, CPBE, 8-VSB, CBNT, of Noblesville, IN, who collectively oversee the educational and scholarship programs of the Trust. We welcome Tony and thank Leonard Charles for his service as a Trustee.

We also welcome Dave Siegler, CPBE, to the SBE Board of Directors. Dave, VP of technical operations at Cox Media Group in Atlanta, was appointed by the Board of Directors to fill the unexpired term of Jim Bernier, who vacated his director seat following his election to the treasurer position.

I hope 2017 has been a good year for you. As it comes to a close, I wish you all a wonderful holiday season, and best wishes for 2018!

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ENGINEERING PERSPECTIVE

By George Schank, CPBE, CBNT
Broadcast Site Management
gschank1@gmail.com

Cleanup After a Hurricane

When hurricane Harvey came roaring into Texas, Houston broadcasters were about as prepared as they could be. Back up sites. Generators. Preparedness plans. And while hurricanes usually come with intense rains, most residents of the upper Texas coast weren't prepared for the heaviest rains in history.

son was able to get to the site via airboat about 48 hours after the station had gone down. By then, the water had receded inside the building, but everything was an incredible mess.

The KXNG transmitter building is in a river bottom location. KSBJ Educational has owned the site for less than a year, and a new Nautel GV 30 was installed when it acquired the site. The building is elevated on four-foot piers; however, due to an unplanned release of water from Lake Conroe, the building had about four more feet of water inside. This inundated both the GV 30 and the back-up Continental 816 transmitters. The resultant flooding also came within a half mile of the KSBJ/KXNG studios, in Humble, TX.

As soon as possible, KSBJ Engineering developed a plan for recovery. This involved having some of the engineering staff removing the damaged equipment from the buildings at both sites; while others went to undamaged sites South of Houston and removed a 10kW back-up transmitter to get the primary KSBJ signal back on the air. Getting down to the sites south of Houston wasn't an easy proposition. The normal routes were still underwater or otherwise closed, due to roadway damage. But crews worked round-the-clock to effect temporary recovery. Within 24 hours, KSBJ returned to the air at reduced power, but still able to cover the largest part of its normal listening area.

Recovery at the KXNG transmitter was occurring almost simultaneously. Other Houston broadcasters stepped up and donated a small 1kW transmitter. Houston Christian Broadcasters sent transmission line and fittings to get that transmitter up so KXNG could run at reduced power, as well.

The ensuing weeks produced efforts to begin getting both stations back up to their full licensed powers. A BE 30 back-up transmitter from another South Texas site was removed, with the help of Broadcast Site Management and brought to the KSBJ transmitter location. It was installed and on the air within 12 hours.

A graciously unexpected loan of a

rental transmitter from Educational Media Foundation allowed KXNG to return to full power within the month of September. And within a few weeks, the folks at Nautel managed to ship another new GV40 for KSBJ. At this writing, both stations are back on the air at full power.

One Houston LPFM got flooded. Radio Sanacion de Familia, KZLD-LP, was off the air for approximately a week. The facility is enclosed in an air-conditioned cabinet on a T-Mobile cell site that received water damage.

Houston TV broadcasters didn't escape the flooding. Aside from the usual transmitter site access issues encountered following the flooding, the local CBS affiliate, KHOU-TV, had its entire studio facility wiped out from high water. As the lower level of the facility began to flood, operations moved to the second floor. However, it wasn't long before the electrical system at the facility failed; and the station was dark for the entire broadcast day. At last report, the local PBS affiliate, KUHT-TV, was providing a temporary news set and workrooms for the local news crews.



Contractors from Broadcast Site Management installing electrical wiring for the new Nautel GV40. Nautel factory personnel worked to provide a new transmitter within two weeks of the Harvey flood damage.

Such was the case with one Houston station. Christian broadcaster KSBJ Educational Foundation has two transmitter sites dedicated to two separate formats. Both are located near different forks of the San Jacinto River; and both sites flooded for different reasons.

In the case of KSBJ, the transmitter site flooded when the entire town of Plum Grove, TX, went underwater. The transmitter building received approximately three feet of water, completely swamping both the Nautel main and Broadcast Electronics back-up transmitters. Bridges that allow access to the town were washed away, and for several days, access could only be obtained by boat. KSBJ Senior Director of Technology, Steven Thomp-



High-water mark on the filters and mud-slicked floor at KSBJ transmitter site.

Programming was being fed directly to the transmitter site via satellite from Dallas; with two sat truck engineers working 12-hour shifts.

Network affiliates from as far away as Los Angeles and the East Coast sent news crews to augment the local crews, many of whom had experienced flooding at their own homes.

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Consulting Engineers
- The Durst Org. - 4 Times Square • 2004**
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- Econco • 1980**
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Playlist and Automation Solutions
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Equipment
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Radio Broadcast Equipment
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DTV, FM-HD Radio, DVB-T/2, ISDB-T, DAB
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Lon Mass 973-317-5117
Professional Video Products, Camcorders,
Display Monitors, Recording Decks
- Ka You Systems • 2011**
George Gimourginas 301-585-4302
Audio, Video, IP - Satellite
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Les Kutasi 214-238-8835
Antennas for Broadcasting & Communications
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Joaquin Raventos 423-878-3141
Radio Broadcast Antenna Systems - ISO9001
Registered Company
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CEAs, IOTs, Thyratrons
- Lavo AG • 2017**
Michael Dosch 888-810-4468
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Javier Castillo 252-757-0279
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- Linkup Communications Corporation • 2017**
Mark Johnson 703-217-8290
Satellite Technology Solutions
- LYNX Technik • 2007**
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Broadcast Terminal Equipment Manufacturer
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Microphones
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Microwave Equipment Rental, Sales & Service
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Equipment, Mounting, Solutions
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Doug Ross 814-472-5540
Quality Broadcast Antenna Systems
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Kevin Wainwright 484-701-3431
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Scott Martin 812-589-4755
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Gerald LeBow 914-872-4069
Emergency Alert Systems Products
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Bob Cauthen 800-438-6040
Audio and RF Broadcast Equipment Supplier
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John Breckenridge 360-793-6564
Tower/Antenna Erections
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Dale Ladner 888-SHIVELY
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Radio Digital Audio Systems
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John Shike 650-703-4906
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Digital Audio Mixing Consoles, Networked
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Manufacturer of Voltage Regulators, UPS
- Sutro Tower Inc. • 1989**
Eric Dausman 415-681-8850
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- The Switch • 2011**
Peter Hartz 323-645-8011
Fiber Transmission Provider
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Jim Lang 503-627-2980
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Camera Robotic Control Systems
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Member Spotlight: Bill Sewell

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Position: VP Technology
Location: Norfolk, VA
I'm Best Known For: Saying, "It's just TV."

Q What do you value most about your SBE involvement?

A The chance to meet with other broadcast engineers. It helps to talk to your peers and find out that they generally have the same issues at their workplace as you do, and to be able to share ideas and solutions – or at least blow off steam about it! I've also come to appreciate the SBE for its focus on education.

Q What got you started in broadcast engineering?

A I started as a production tech at WAVE-TV in Louisville, KY, while in college. I was interested in any of the departments except engineering, and I was studying for an MIS degree at the University of Louisville. I loved production, but it didn't pay great, so I planned to work in IT after college. I didn't make the connection that computers would revolutionize broadcasting. The network admin at WAVE convinced me to work with him in the engineering department.



Bill gives a lecture on ATSC 3.0 at the Virginia Association of Broadcasters convention last summer.

Q Who was your mentor?

A I learned a lot from Jim Sears, who is still the chief at WAVE-TV. We still keep in touch.

Q What do you like most about your job?

A That we provide an important community service. People turn on their TV when there is severe weather or any type of emergency, and I feel proud to help provide that service. As a chief engineer specifically, I really enjoy how varied the job is. You can't really get bored.

Q When I'm not working I...

A ...have three young children from ages 2 to 9, so I spend a lot of time at little league games and school plays.

Q What's your favorite gadget?

A The smartphone. I won't stand in line for the next new phone, but I remember when computers had floppy drives and we learned the Dewey Decimal system at the library. Having a device in my pocket that shoots HD video and can access all the information known to man is still pretty neat.

MEETING from p. 1

Bernier, CPBE, CBNE, as treasurer and Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE, as secretary. Directors beginning two-year terms included Andrea Cummis, CBT, CTO; Mark Fehlig, PE, CPBE, 8-VSB, CBNT; Steve Lampen, CBRE; Kimberly Sacks, CBT; David Siegler, CPBE; Barry Thomas, CPBE, DRB, CBNE and Kevin Trueblood, CPBE, CBNT. They join six other directors on the Board who are in the middle of their two-year terms and Immediate Past President Jerry Massey.

Two chapters were recognized during the membership meeting with the annual SBE Golden Recruiter Awards. This award recognizes the chapters that recruited the most members during the annual SBE Membership Drive, held March 1 through May 31 this year. Chapter 25 of Indianapolis, Interim Chair Tom Weber, CPBE, CBNT, won in the larger chapter category and Chapter 111 of Huntsville, AL, chaired by Kevin Kidd, CSRE, AMD, won in the smaller chapter category.

The Annual Membership Meeting webcast was produced by a volunteer technical crew, led by Vinny Lopez, CEV, CBNT, of Syracuse, NY; Paul Montoya of Buford, WY, Shane Toven of Laramie, WY, with support from SBE Member Communications Director Chriss Scherer, CPBE, CBNT. Also, our thanks to Ben Slater of Laramie, WY, and Chuck Kelly of Nobles-

ville, IN, for their technical help. We express our deep appreciation to Wyoming Public Media at the University of Wyoming and Criss Niemann of Shure Inc. for their contributions of equipment and personnel. The webcast was made possible through the financial support of six SBE Sustaining Member sponsors: AC Video Solutions, Blackmagic Design, Dielectric, DTS/HD Radio, DVEO and Micronet.

Capping off the 2017 National Meeting was the Annual SBE Awards Dinner. Among the members recognized for achievement were Steve Brown with the Robert W. Flanders SBE Engineer of the Year Award and Tony Peterle, CPBE, with the James C. Wulliman SBE Educator of the Year Award. SBE Sustaining Member IMT Vislink received this year's SBE Technology Award. Three members were elevated to the highest SBE membership grade. Frank Giardina, CPBE; Ted Hand, CPBE, 8-VSB, AMD, DRB; and Robert Hoffman, CPBE, were named SBE Fellows.

Weller also provided the keynote presentation for the evening, providing an update and his thoughts on the TV repack process.

At the close of the dinner, President Leifer invited everyone to attend the 2018 SBE National Meeting in the Greater Boston area, held in October in conjunction with the Media Resource Expo.

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WELCOME TO THE SBE

NEW MEMBERS

Felix A. Baez - Englewood, NJ
Aren Burchette - Honolulu, HI
Benjamin Cebulak - Chicago, IL
Christopher C. Chappel - Oakland, CA
Alan N. Cole - Lima, NY
Jessica Colyer - San Diego, CA
Joshua D. Ely - Boise, ID
Kyle K. Facey - Portland, ME
Thomas R. Gardner - Mayfield Hts., OH
William M. Grant - Montgomery, AL
Burt Hazard - Watertown, MA
Joel D. Hime - Tucson, AZ
Christopher W. Hogan - Anniston, AL
Clarke Johnson - Cartersville, GA
Josh Kahn - Oakland, CA
Kimon Kalemikeris - Toronto, ON
Aaron Kaplan - New London, CT
Jeremiah McKenzie - Parkersburg, WV
Matthew R. Noia - Brooklyn, NY
Robert A. Page - Orlando, FL
Paul A. Parker - Manhattan, KS
Ben Perun - East Syracuse, NY
Glenn Proven - Elkins Park, PA
Michael Raines - Hurricane, WV
Jose A. Roldan - Hollywood, FL
Dan Rositano - Mentor, OH
Robert Rutledge - Edmond, OK
Dilip K. Saha - APO, AP
Aaron Schaad - Lincoln, NE
Steven Stanley - Hurricane, WV
Lisa M. Stapley - Aurora, CO
Chris Stevens - Broken Arrow, OK
Marc C. Tarplee - Rock Hill, SC
Tommy K. Vice - Forest Lake, MN
Jimmy L. Wilken - Corpus Christi, TX
Kenny Wong - San Francisco, CA

NEW STUDENT MEMBERS

Andrew W. Canada - Niagara Falls, NY
Nicholas H. Thweatt - Lynden, WA

NEW ASSOCIATE MEMBERS

Daniel Dreyfack - Brooklyn, NY
Claudia B. Haase - Brooklyn, NY

RETURNING MEMBERS

Zachary A. Akey - Woodbridge, VA
Chris Ark - Ionia, MI
Daniel L. Borowicz - Elkton, MD
Natasha R. Branch - Keller, TX
John C. Chrystal - Shingletown, CA
Mark B. Clem - Jonesboro, AR
Scott Hempstead - Springfield, VA
Lubos Kuzma - Calgary, AB
James P. Kuzman - Girard, OH
Neil Lee - Washington, DC
Jason L. Mangold - Houston, TX
Raymond H. Mayberry - Richmond, VA
Andrew S. McHaddad - Canyon Country, CA
Mark E. McKinney - Ormond Beach, FL
Leeland E. Mitchell - Oswego, NY
John R. Owen - Peebles, OH
Bradley Plant - Brooklyn, NY
Elmer E. Smalling - Spokane, WA
Eric M. Tervol - Lansing, MI
Charles M. Vedral - Baltimore, MD
Jason A. Waterhouse - Hawthorne, CA

Nominate a Colleague for SBE Fellow

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

As a broadcast professional, I'm sure you know an SBE member who has contributed to the success of an SBE chapter or the broadcast industry over the years. This person has exhibited a dedication to the advancement of the broadcast engineer, the field of broadcast engineering and the Society of Broadcast Engineers itself. Someone like this deserves to be recognized for his or her efforts. Consider nominating him or her for the SBE Fellow rank of membership. The SBE is now accepting nominations for 2018.

Fellow membership is the highest level of SBE membership. It's a form of recognition for someone who has contributed significantly to the society, the field of broadcast engineering or its allied professions, or by disseminating his or her broadcast knowledge and promoting its application in practice. Eighty-three members have been recognized with the honor in the society's more than 50 years of existence.

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

Nominations for 2018 must be received no later than March 9, 2018, for consideration. The Fellowship Committee will bring the names of nominees to the Board of Directors for consideration and election at the April 2018 meeting. The SBE secretary will notify those elected. Awards will be presented at the SBE National Awards Dinner during the 2018 SBE National Meeting to be held in the Boston area. Submit your nominations to Fellowship Committee Chair Troy Pennington, CSRE, CBNT; 6156 Hampton Hall Way; Hermitage, TN 37076 or to tpennington@sbe.org.

Chapter Check

Chapter 56 • Tulsa, OK

Chapter 56 had a program in August with Max Francis of Lectrosionics presenting a program on wireless microphones and the FCC spectrum repack.



Siegler Appointed to SBE Board of Directors

The SBE Board of Directors, at its meeting on Oct. 25, approved the appointment of David Siegler, CPBE, to fill an open position on the SBE Board of Directors. The Board seat opened when Jim Bernier, CPBE, CBNE, was elected to the office of SBE treasurer in the recent election. Siegler fills Bernier's unexpired term that will end in the fall 2018.



Siegler

Siegler is VP, technical operations, of Cox Media Group. He is based in Atlanta. He is also a member of the AFCCE, ATSC, IEEE, and SMPTE, and serves on the board of directors of the ATSC and the Journal Award Committee for SMPTE. He is a SMPTE Fellow Member and was awarded Broadcasting & Cable's Technology Leadership award in 2015.

On the appointment, SBE President Jim Leifer, CPBE, said, "Dave was a candidate in the 2017 SBE election, so his interest to serve was established. It was a natural choice to ask him to join the Board now. I'm glad to have him with us."

The SBE Board of Directors meets in-person at least twice per year. Those meetings are usually at the NAB Show and the SBE National Meeting.

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MEMBERS ON THE MOVE



▶ **RJ Russell**, CPBE, founded and is president of Technical Broadcast Solutions in Middletown, DE.

▶ **Kurt Oberloh**

is a mentor with Score Mentors, Takima Valley, WA.

▼ **Matthew Saplin**, CBTE,



is the assistant chief engineer at WMHT, Troy, NY

Eric Adler is the director of engineering/IT and broadcast production at WSKG Public Media, Vestal, NY.



▶ **Anthony Peiffer**, CBTE, is technical operations manager for the City of New York Mayor's Office of Media and Entertainment at WNYE-TV/FM.

Paul Shulins, CBRE, is vice president chief technology officer of Burk Technology, Littleton, MA.

▶ **John Lyons**, CPBE, is now the president of the AFCCE.

Other SBE members with new roles at the organization:

Chris Horne, PE, is vice president; and **Mark Fehlig**, CPBE, 8-VSB, CBNT, is a board member.



Have a new job? Received a promotion? Let your fellow SBE members know. Send your news to Chriss Scherer at cscherer@sbe.org.

MARK YOUR CALENDAR

SBE Certification Exams

Local Chapters

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sbe.org/certification

Application deadline Dec. 31, 2017

SBE Membership Drive

through May 31

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sbe.org

Ennes Workshop

Chapter 53 South Florida

March 2, 2018

sbe.org/ennes

Ennes Workshop

NAB Show

April 7, 2018

sbe.org/ennes

SBE Certification Exams

NAB Show

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