

THE Signal

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Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

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2015 SBE National Meeting Highlighted By Netcast

The 2015 SBE National Meeting, held in conjunction with the Wisconsin Broadcasters Association Broadcasters Clinic, was held in Madison, WI, at the Madison Marriott West Oct. 13 and 14. In addition

to the seminars and exhibit floor that were part of the Clinic, the SBE National Meeting included meetings of the Certification and Education Committees, a meeting of the Board of Directors, the annual Fellows Breakfast, the National Membership Meeting and netcast, a member reception and the SBE National Awards Dinner.

The Board of Directors meeting covered a wide range of society business, and reports and action from that meeting will be covered in forthcoming news and *The Signal*.

The annual SBE

Fellows Breakfast, sponsored again by Kathrein, attracted 20 people, and one of the largest gatherings of SBE Fellows that had been seen for several years.

A highlight of the event was the SBE Annual Membership Meeting, which was netcast with the technical support of Vinny Lopez, Paul Stoffel, Lynn DeWolf and several staffers from Wisconsin Public Television, and the financial support of 305 Broadcast, AC Video Solutions, Blackmagic Design, Comrex, DVEO and Micronet. The netcast is available on demand via the link on the SBE home page. The recently elected directors and officers of the SBE were sworn in during the Membership Meeting.

After the Membership Meeting and before the Awards Dinner, attendees relaxed and socialized at a reception sponsored by Ross Video.

see [MEETING](#), p.9



Plan Now For 2016 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 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 getting 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. Several broadcast organizations send a group of students 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 dis-

count on registration.

The course will be held Aug. 9-11 at the Hyatt Place Atlanta Airport South. Register online now at sbe.org/ldc or by contacting the National Office.

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

Nominations Open 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 2016.

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. Seventy-six 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 2016 must be received no later than March 11, 2016, for consideration. The Fellowship Committee will bring the names of nominees to the Board of Directors for consideration and election at the April 2016 meeting. The SBE secretary will notify those elected. Awards will be presented at the SBE National Awards Dinner during the 2016 SBE National Meeting to be held in Columbus, OH.

Submit your nominations to: Fellowship Committee Chair Troy Pennington, CSRE, CBNT; 6156 Hampton Hall Way; Hermitage, TN 37076 or to tpennington@sbe.org.



Certification Question

Answer on page 6

Adhering to good safety practices such as carefully handling chemicals when splicing, using eye protection when viewing certain laser light sources and avoiding fractures and splinters when handling cable all refer to what?

- A. IEEE standards for the installation of cable
- B. Good safety practices for handling coaxial cable
- C. ANSI standards for splicing electrical cables
- D. Good safety practices when maintaining fiber optic cable



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LETTER FROM THE PRESIDENT

By Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT
SBE President
jmassey@sbe.org

New Ideas for A New Term

It is an honor to be elected your president for 2015-2016, and it is my promise to represent you the members to the best of my abilities. I first want to acknowledge the exceptional work done by the past Board of Directors under the leadership of past president Joe Snelson. Thank you all and especially Joe for the service you performed in leading the Society of Broadcast Engineers.

As we look to the new SBE year, we have many challenges before us, and I want to point out a few goals that we will be undertaking. One goal is to continue the work of the past board in the areas of education and government relations. We are looking forward to new educational offerings in the coming year that will give you the members a chance to increase your skills relative to your job. The past webinars and courses through the SBE University have been well received and used by those who signed up to take the courses. We want that to continue in the coming year. This year will have the Government Relations Committee busy monitoring the AM Improvement docket, ATSC 3, NRSC, wireless mics and repacking to name a few. This committee,

under the leadership of Joe Snelson, will determine how to best represent you in these actions.

We have a new initiative for the coming year. At our last meeting, the Board of Directors approved the formation of an ad-hoc committee to investigate and hopefully assist in answering the question of where the new broadcast engineers and media specialist will be found. We see that daily the U.S. armed forces release from service talented and well-trained service men and women with experience and training in electronics and IT. This ad-hoc committee will examine ways to encourage these returning service members to the Society of Broadcast Engineers and to the broadcast community. We will investigate working with veteran's organizations and the military to provide information as to this opportunity to those leaving the military. The basic education the military provides to these service members is exceptional and can easily be used in civilian life, and we would like for them to choose the broadcast industry as a profession, and especially the SBE as members. This committee will be composed of the chairs of our Education,

Mentoring and Membership Committees in addition to a military advisor to begin this exploration. We are looking forward to providing you more information on this in the future.

As I noted in my acceptance comments at the National Meeting, I am a firm believer in the SBE Certification program. I did not obtain my first certification until I was in my mid-forties. I hear the comments from members that they do not need to be certified for their present jobs. At the time, I did not need it either, but I wanted to prove to myself that I did know what I professed to know, and the certification program allowed me to do that. So, my challenge to you, the members of SBE, for the coming year is to become certified, not because you need it, but to prove to yourself that you do know what you are practicing! So, just do it!

As your president, my email is always open to you for your comments or suggestions. I will respond to you at my earliest opportunity. The officers, Board of Directors of the SBE and I are here to serve you, so give us your thoughts and especially your ideas.

Future National Meeting Sites Chosen

The SBE holds its National Meeting each fall, and the locations for the next three National Meetings were selected by the SBE Board of Directors: 2016 Ohio Association of Broadcasters Engineering Conference, Columbus; 2017 Rocky Mountain Audio/Video Expo, Denver; 2018 Media Resource Expo, New England.

National Committee Chairs Named

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

- Awards Mike Hendrickson, CPBE, CBNT
- By-Laws Ched Keiler, CPBE, 8-VSB, CBNE
- Certification Ralph Hogan, CPBE, DRB, CBNE
- Chapter Liaison Mark Fehlig, CPBE, 8-VSB, CBNT
- EAS Education Ben Brinitzer, CPBE, AMD
- Education Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
- Fellowship Troy Pennington, CSRE, CBNT
- Finance Gary Kline, CBT, CBNT
- Frequency Coordination Ted Hand, CPBE, 8-VSB, AMD, DRB
- Government Relations Joe Snelson, CPBE, 8-VSB
- International Charles W. Kelly Jr.
- Membership Kevin Plumb, CPBE (chair)
Tim Anderson, CPBE, DRB, CBNE (chair asst.)
- Mentoring Jeff Keith, CPBE (co-chair)
Eric Schechter, CBRE (co-chair)
- Nominations R.J. Russell, CPBE
- Publications Andrea Cummis, CBT, CTO
- Social Networking Kimberly Sacks, CBT
- Sustaining Membership Jim Leifer, CPBE

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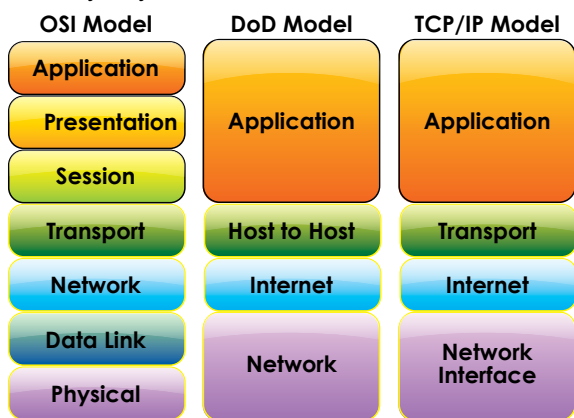


EDUCATION UPDATE

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

A Practical Use For the OSI Model

The October 2015 *Signal* column focused on the importance of the OSI (Open Systems Interconnection) model in understanding IP networking technology. The language of IP networking is often found derived from the OSI model structure. A model such as the OSI that is abstract in design is often difficult to apply to the practical day-day activities.



The OSI Model is often thought to be a legacy concept in favor of newer models, such as the DoD or TCP/IP models, that focus on TCP/IP protocols.

IP networks have become an integral aspect of the broadcast technical facility. Integration with the legacy broadcast infrastructure can range from minimal control functions to a complete IP-based content transport facility. Regardless of the integration level or complexity, the IP network is yet another critical system for the broadcast engineer to understand and maintain.

When IP network abnormalities occur, how does the broadcast engineer isolate and resolve IP network issues in a timely manner? Too often, shooting-from-the-hip troubleshooting approaches occur under the pressure of quickly resolving the problem. A practical use for the OSI Model is to utilize the layer approach of the OSI Model to form a structured approach to IP network troubleshooting, often resulting in a more efficient and effective process. The Data Flow layers (1-4) form the structured process. Thus, a structured approach might begin at Layer 1 and progress through Layer 4 as layer functionality is verified.

At Layer 1 (the Physical Layer), the network medium is the focus where the Pro-

col Data Unit (PDU) is the bit. 80 percent of network abnormalities are often found here in terms of defective cabling, often of the unshielded twisted pair (UTP) variety. The IEEE 802 body of standards sets characteristics for a wide variety of legacy and current Ethernet standards. These standards define the cabling performance characteristics. Outright cable substitution

may be a quick approach to resolve a suspected defective cable. An ohmmeter can often troubleshoot continuity problems in a four-pair CAT-5 twisted pair cable, but a cable scanning device is often desired for quick cable verification of not only continuity, but to provide time domain reflectometer (TDR) measurements to pinpoint continuity breaks in one or more conductor pairs. Additional device capabilities may also provide the ability to characterize cable in terms of the overall suitability for higher data transport ability. And keep in mind the 100 meter cable length limit as set by the IEEE standards for most

unshielded twisted pair cabling. Don't overlook patch cable jumper lengths often found at the endpoints of a fixed cable installation. And proper termination techniques are must.

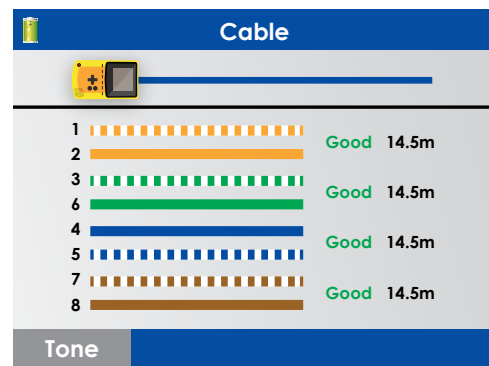
Once Layer 1 is verified, Layer 2 (the Data Link Layer) comes next. At Layer 2, performance issues are often uncovered and managed Ethernet switch diagnostics can be utilized to verify that frames are sent and received intact by verification of no cyclic redundancy check (CRC) errors. CRC errors are often found to be a result of duplex mismatch between network infrastructure devices. If you depend on auto-negotiation in your infrastructure, a best practice approach is to always verify port configurations or manually set duplex configuration settings.

At Layer 3 (the Network Layer) a focus is upon the transport of packets that are destined for a specific network. A first step is to always verify that the IP address is correct for a specific host. Remember that an IP address must have an associated subnet mask address whether implied or stated. Address verification insures that hosts are correctly configured for the network address range intended. Additional TCP utilities such as Ping and Traceroute can

be used to verify network connectivity and provide some basic performance metrics. However, keep in mind that these utilities can at times produce mis-leading metrics as the Internet Message Control Protocol (ICMP) used by these utilities can be degraded or outright blocked by network infrastructure devices.

At Layer 4 (the Transport Layer), troubleshooting often becomes more difficult as it is always difficult to fix what you cannot readily see. Thus, the use of protocol analysis becomes a must to decode and make visible the Transmission Control Protocol (TCP) segment activity at Layer 3 and even the packet activity at Layer 3. The network is often blamed for poor performance when in reality a server may be the slow device affecting users. Protocol analysis using tools such as WireShark can quickly verify performance and create visibility of network activity.

A structured approach to any troubleshooting effort whether at the transmitter or within the station IP network is the most efficient and effective approach. The layer design of the OSI model provides the perfect framework in which to build a structured IP network troubleshooting approach to verify functionality or to isolate the root cause issue.



A cable scanning tool is often the most practical method to verify and troubleshoot unshielded twisted pair (UTP) network cabling.

Remember, learning is a continuous process for the technology professional and certainly the broadcast engineer. Continuous learning is a key trait of the successful technology professional and the SBE Education team is at work to bring you quality professional development programs covering timely industry topics and delivered in several mediums. Your comments and feedback are always welcome.

For more information on any SBE education program, contact Education Director Kristin Owens: kowens@sbe.org or 317-846-9000.



CERTIFICATION UPDATE

By Megan Clappe
SBE Certification Director
mclappe@sbe.org

2015 SBE Certification 40th Year In Review

2015 marks the 40th anniversary of the SBE Program of Certification

As the 40th anniversary of the certification program comes to an end, I wanted to review what the committee has been working on and what we will be up to in the coming year.

At the beginning of 2015, the National Certification Committee began a complete question review of the entire database. This includes the exam questions, essay questions and the CertPreview questions. As it's conducted, the review will deactivate and rewrite outdated questions, and new questions will also be added. In all, there are 2,356 questions in the database, 87 essay questions, and 972 questions in CertPreview to be reviewed. The National Certification Committee is about one-third of the way through this review and should have it completed by the end of 2016.

During the Committee meeting held at the National Meeting in October, the committee approved an addendum to the 7th edition of the Certified Television Operator's Certification Handbook. The addendum adds information that the master control operator should be aware of regarding closed captioning and the CALM Act.

The committee also discussed an ongoing review of the certification exam rules.

Just as the technology being covered in certification exams has progressed, so has the technology someone can use to prepare for and take an exam. The Committee is covering areas such as allowing electronic devices being used during exams to access books or the Internet, as well as allowing notes in the exam room. Because this is a complicated subject, the Committee wants to be thoughtful, deliberate and forward-thinking in its action. An implementation date is still pending.

A Personal Challenge for Certification

At the 2015 National Meeting Awards Dinner, SBE President Jerry Massey issued a challenge to all SBE members, and broadcast and media engineers in general, to become SBE certified. The Certification Committee has heard lots of reasons as to

why someone may not be SBE certified. Excuses aside, the process is not complicated. It takes minimal effort to submit the application, and you will need to set some time aside to take the exam, but the reward is worth it. I echo President Massey's call: Make a point to become SBE certified.

Cost Efficiency

On Jan. 1, 2016, the fees for SBE certification will increase by \$5 for all levels. While the Program of Certification is designed to be a service to broadcasting and not a profit center for the SBE, the Program has established, ongoing costs for its operation. The fee increase reflects the overall general cost increases.

Because an SBE certification is valid for five years, the increase can be considered as only \$1 per year, which is quite small.



Answer from page 3

D. Good safety practices when maintaining fiber optic cable

The question refers to safety and handling processes that apply to maintaining and splicing fiber optic cable. Fiber optic cable contains no voltage, it's not coaxial cable or electrical cable, so answer D is correct because it relates to maintenance and splicing fiber optic cables.

Certification By The Numbers

15 different certifications available.
The program started with four.

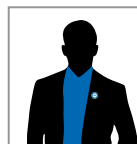
Issued more than 18,300
certifications in 40 years

4,986 active certifications
active and increasing

Most popular certification
today: CBT



Chapter with the most certified people:
Chapter 47 Los Angeles with 69 people



Chapter Certification
Chairman with the longest term: 35 years
Bill Kozel, CSRTAVE, CBNT
Chapter 70 Northeast Ohio



6
National Certification
Committee chairmen



3
certification directors

SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION	Certified Professional Broadcast Engineer® (CPBE®) Lang Sturgeon, Thurmont, MD – Chapter 46 Certified Senior Radio Broadcast Television Engineer™ (CSRBTE™) John Croft, Jr., Silver Spring, MD – Chapter 37	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.	
SPECIAL-PROCTORED EXAMS	Alabama Broadcasters Association Certified Broadcast Technologist® (CBT®)	David Farmer, Moody, AL – Chapter 68 Carl Snyder, Lake Charles, LA – Chapter 134 Jeff Wittman, Jr., Hoover, AL – Chapter 68	
SBE CERTIFIED SCHOOL COURSE COMPLETION	Certified Broadcast Technologist® (CBT®) DINFOS	Jeffrey Benson, Fort Bragg, NC – Chapter 93 Donald Burris, Lillington, NC – Chapter 93 Emily Houdersheldt, Vernon, NJ Garland Jones, APO, AE	
CERTIFIED BY LICENSE	Certified Broadcast Technologist® (CBT®) James Markus, Stamford, CT	Dave Morris, Erwin, NC – Chapter 93	Nirmal Singh, Whigham, GA
CERTIFIED RADIO OPERATOR® (CRO®)	Alan Gonzalez, Tucson, AZ	Esequiel Reyes, North Hills, CA	Andrew Schildberg, Tucson, AZ
CERTIFIED TELEVISION OPERATOR® (CTO®)	Leonardo Groba Alonso, Chicago, IL Jessica Blomer, Boulder, CO Robert Pick, Plant City, FL <i>Fort Bragg</i> Bernard Baker, Fayetteville, NC Sam Bergio, Ft. Bragg, NC Donald Burris, Lillington, NC Dominique Carter, Fort Bragg, NC	<i>Fort Bragg (cont.)</i> Raphael Cornejo, Hopemills, NC Christopher Lightfoot, Fayetteville, NC Nathan Love, Raeford, NC Samuel Meade, Spring Lake, NC James Moore, Fayetteville, NC Kyle Shulz, Fayetteville, NC Norman Portillo, Fort Bragg, NC	<i>Fort Bragg (cont.)</i> Norman Portillo, Fort Bragg, NC John Prukop, Fayetteville, NC Stanson Roach, Fayetteville, NC Mark Robertson, Raeford, NC John Sites, Raeford, NC Michael Turnbaugh, Fort Bragg, NC Joshual Quigley, Fort Bragg, NC Robert Waller, Fort Bragg, NC
RECERTIFICATION The following 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 Broadcast Networking Technologist® (CBNT®) Mark Baldrige, Hillsboro, WI – Chapter 24 Certified Radio Operator® (CRO®) Travis Arrington, Chancellor, AL David Haug, Larchmont, NY Joel Hime, Tucson, AZ Thor Moldrem, Tucson, AZ	Certified Television Operator® (CTO®) Tara Arden, Playa del Ray, CA Stephen Brown, Virginia Beach, VA Mark Caska, Charlotte, NC Eva Hern, Kemah, TX – Chapter 105 Patrick Mahon, Roseville, MI – Chapter 80	CTO® (cont.) Monica Padilla, Lakewood, CA Richard Reyes, Honolulu, HI – Chapter 63 William Thompson, Raleigh, NC Dustin Vasko, Virginia Beach, VA – Chapter 54 Timothy Weeks, Fort Mill, SC

Chapter Check

▶ Chapter 26 Chicago

In July, Chapter 26 Chicago met at Fermilab, the particle physics laboratory in Batavia, IL. Photo by Jon Morgan, CBT.



◀ Chapter 40 San Francisco

Chapter 40 San Francisco held its monthly meeting in June, where Gary Kline, CBT, CBNT, snapped this photo. Chapter Chair Art Lebermann, CPBE, leads the business portion of the meeting. Ellis Terry of Nautel provided the program.



◀ Chapter 47 Los Angeles

Over the summer, Chapter 47 met at KLAA-AM830 Radio at Angels Stadium in Anaheim, CA. Chief Engineer and Operations Manager Paul Sakrison of KLAA (far left) hosted the meeting. Photo by Mike Tosch, CSRE, CSTE, AMD, CBNE.

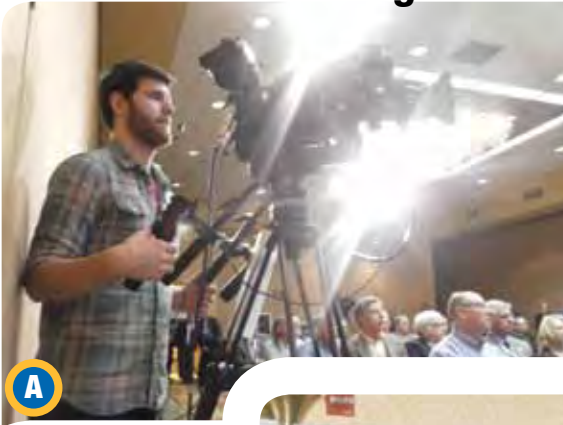


▼ Chapter 59 Kansas City

In August, members of the FCC's Kansas City Field Office joined the chapter for lunch. The chapter invited them as a thanks for their work in the past as the FCC prepares to close several Field Offices around the country.



Chapters: Send your meeting and event photos to cscherer@sbe.org.

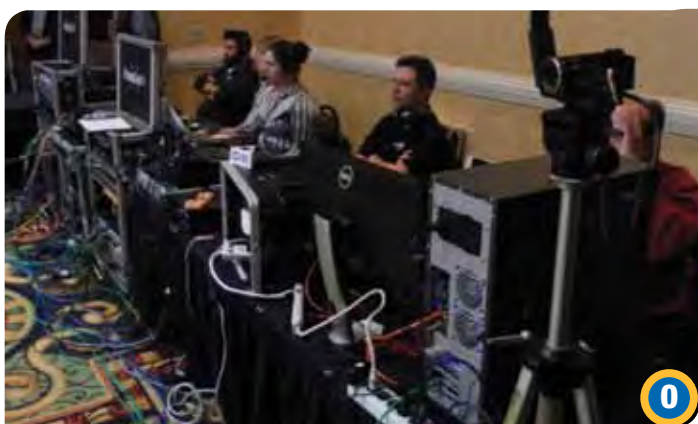


MEETING, from p.1

The SBE National Awards Dinner recognized all the recipients of the 2015 National Awards program. The dinner was sponsored by the Telos Alliance, and included presentations of the society's most important awards: the James W. Flanders SBE Engineer of the Year Award to Roz Clark, CPBE, CBNT; the James C. Wulliman SBE Educator of the Year Award to SBE Chapter 39; and the SBE Technology Award to Blackmagic Design. The SBE's two newest Fellows were also recognized: Cris Alexander, CPBE, AMD, DRB, and Ralph Hogan, CPBE, DRB, CBNE.

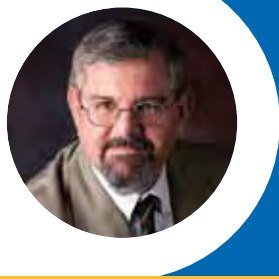
The keynote speaker for the dinner was Charles Cooper, acting field director of the FCC Enforcement Bureau. Cooper discussed the pending closures of several FCC field offices and how the agency will handle field issues, pirate radio, and other efforts of the FCC.

The 2016 SBE National Meeting will be held in conjunction with the Ohio Broadcasters Association Engineering Conference in Columbus.



SBE National Meeting In Pictures

- A.** The annual Membership Meeting was also streamed live.
- B.** Outgoing SBE President Joe Snelson receives a plaque to commemorate his terms as president.
- C.** Charles Cooper, acting field director for the FCC Enforcement Bureau, was the Awards Dinner keynote speaker.
- D.** Roz Clark received the Robert W. Flanders SBE Engineer of the Year Award.
- E.** SBE General Counsel Chris Imlay (l) swears Jerry Massey in as the new SBE president.
- F.** New SBE Fellows Cris Alexander (l) and Ralph Hogan (r).
- G.** SBE President Jerry Massey stands with the 2015-16 SBE Board of Directors.
- H.** The SBE booth saw a steady flow of traffic.
- I.** A reception was held between the Annual Membership Meeting and the SBE Awards Dinner.
- J.** A tradition at the SBE National Meeting, the Fellows Breakfast gathered a large crowd this year.
- K.** The Membership Meeting attracted a large audience.
- L.** All the national award winners gather at the end of the Awards Dinner.
- M.** Clinic Program Chair Leonard Charles, CPBE (l), and Chapter 24 Chair Kevin Ruppert, CPBE, CBNT, are recognized for their work with the Broadcasters Clinic.
- N.** The SBE Board of Directors met on Tuesday evening.
- O.** The on-site control room for the Membership Meeting netcast.



LEGAL PERSPECTIVE

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

Mom Was Wrong: A Band-Aid Doesn't Make It Feel Better

If you read this column regularly you have heard my rants about ambient noise levels in the AM broadcast band and my hopeful pleas to the FCC to address the ever-worsening noise floor in the AM Improvement Docket. It is a big part of what drives listeners away from the band.

So I read with great anticipation the FCC First Report and Order, Further Notice of Proposed Rule Making and Notice of Inquiry that was released (finally!) on Oct. 23. The SBE's comments in that docket state in part as follows:

At paragraph 5 of the Notice, the Commission states candidly – and SBE suggests absolutely accurately – that “AM radio is particularly susceptible to interference from electronic devices of all types, including such ubiquitous items as TV sets, vehicle engines, fluorescent lighting, computers, and power lines. The noise on the AM band that is caused by those sources is only expected to increase as electronic devices continue to proliferate.” SBE suggests that this enunciation of the current and predicted future RF environment in the medium-frequency spectrum is overly fatalistic, however. It is SBE's view that the goal of AM revitalization will never be realized in the medium and long term in the face of the headwind of a worsening RF noise environment

in the AM broadcast band. Some regulatory relief is absolutely necessary.

I was not expecting any Commission action on ambient RF noise in the Report and Order portion of this docket because, after all, the FCC had not proposed to address it in any of the specific proposals in the Notice of Proposed Rule Making. But I hoped perhaps in the Further NPRM part of the Oct. 23 document there would be proposals to at least cause RF noise to plateau if not decrease over time. Sadly, nothing. I more than hoped; I expected that the Notice of Inquiry part of the document would address RF noise. Nope. Nada. Zilch.

The document dealt principally with a two-step plan for allowing AM licensees to purchase and move into their community of license an FM translator from as far away as 250 miles; and there was a promised window in 2017 for AM stations to apply for new FM translators. That is fine, although it does nothing to improve the AM broadcast band. The Commission also modified the daytime community coverage requirement for licensed AM facilities only, to require that the station's predicted or measured daytime 5mV/m contour encompass only either 50 percent of the population or 50 percent of the area of the community of license. FCC eliminated the ratchet rule as proposed so that an AM broadcaster seeking to make facility changes which would modify its AM signal no longer must demonstrate that the improvements will result in an overall reduction in the amount of skywave interference caused to certain other AM stations. All of these actions are arguably necessary as short-term fixes for AM licensees.

But the Commission seemed content to just allow the ambient noise levels in the AM broadcast band (and in the remainder of the MF and HF spectrum as well) to continue to increase. I did a search in the document for the term “noise floor” and got six hits. One reference was relative to the proposal to change nighttime and critical hours protection to Class A AM stations. The argument from commenters was that they could provide better service, with more power to “overcome the local noise floor,” if the protections to Class A stations were relaxed. No discussion of possibly reducing the noise floor at all. In the same discussion, the FCC said “In this proceeding, spectrum scarcity is not the problem as much as is the need for existing AM stations to overcome an increasing noise floor that inhibits local service, both day and night.” Why is the discussion limited to power increases and reduction of protection criteria? Why no discussion at all about reduction of the (admittedly increasing) noise floor? With respect to nighttime RSS calculation methodology, FCC said that some commenters urged a return to the 50 percent exclusion method used prior to 1991, which considered only the skywave contributions to RSS calculations of co-channel stations, on the theory that it would enable AM broadcasters to improve their facilities and signals and thus overcome the “increasing noise floor.”

I have said this before and I will say it again: AM listeners have media options. RF noise will make them exercise those options. They will not complain about a power line; an RF lighting device, or a Part 15 intentional radiator that causes interference to their receiver. Nor will he or she suffer it. They will simply utilize different media. The FCC document is woefully incomplete, to the detriment of the AM listeners and licensees alike. We need to address this now, before it is too late.



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FOCUS ON SBE

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

Some Thanks Are In Order

As of this writing, we are just a few weeks past the conclusion of the SBE National Meeting held in Madison, WI. The host event, the annual Broadcasters Clinic, proved to be a great setting for our events as it has four times previously. Sponsored by the Wisconsin Broadcasters Association (WBA), the Clinic reported excellent attendance of more than 350 people coming mostly from Wisconsin and surrounding states. The program committee, chaired by SBE member, Leonard Charles, CPBE, of Morgan Murphy Media, provided an outstanding three-day program featuring some of the best technical broadcast and media subject matter experts around. The tradeshow floor hummed, with 60 companies exhibiting their products and services.

Our thanks to Chapter 24 in Madison, chaired by Kevin Ruppert, CPBE, CBNT, for serving as national meeting host, as well as to the other fine chapters in Wisconsin; 28, Milwaukee; 80, Fox Valley and 112, La Crosse; that support this event so well. Our thanks too go to the WBA; President Michelle Vetterkind, Vice President Linda Baun and staff for their work and support.

There are several others who should be thanked for their efforts that helped to make the National Meeting a success. The technical production of the one-hour SBE Annual Membership Meeting, streamed live from the hotel ballroom, was overseen by SBE members Paul Stoffel of Chapter 24 and Vinny Lopez of Chapter 22 of Central New York. Paul, with five of his staff and equipment from WPT-TV in Madison, made the video and audio production possible. Vinny, a veteran of our SBE webcast productions, traveled from Syracuse to oversee the Internet feed, bringing some of his own specially prepared equipment to do the job.

This national meeting marked the customary, biennial transition of presidents. Joe Snelson, CPBE, 8-VSB, finished two one-year terms during the event. Joe led

the society in an exemplary manner, completing and implementing major portions of the strategic plan developed in 2012. Joe, a true gentleman, has been a pleasure to work with. And now following Joe is Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT; a 45-year veteran of the broadcast industry whose experience and dedication to the

tee that selects the technical papers presented each year. We also share moderator duties during the conference and provide the popular full-day Ennes/SBE program that kicks off the BEC each year on Saturday. The Ennes program also serves as the final day of the PBS Technical Conference and the Association of Public Radio Engineers Technical Conference, both held in the days leading up to the NAB Show.

Five of the eight BEC committee members are members of the SBE, including committee chairman, Alan Jurison, CPBE, AMD, DRB, CBNE, of iHeartMedia. Other SBE members include R.J. Russell, CPBE, of Fox 29, Philadelphia; Jim Leifer, CPBE, of iHeartMedia - South Florida; Kim Sacks, CBT, of CBS Radio, Washington, DC; and Milford Smith of Greater Media in New Jersey. Also serving on the committee are Peter Sockett, Capitol Broadcasting, Raleigh, NC; Ted Stoner, Univision Communications, Cincinnati, OH; and Ray Thurber, Scripps Media, Southfield, MI. Heading up the Ennes/SBE Program is Fred Baumgartner, CPBE, CBNT, Nautel, Elizabeth, CO.

Conference registration includes admission to the Ennes Workshop. A \$100 discount off NAB Show conference registration will be available to SBE members not eligible for the NAB member registration rate.

Show dates are April 16-21. The SBE plans to hold a member meeting on Tuesday, April 19 at 5:30 p.m., followed immediately by a member reception.

Welcome New Chapter

Page 15 of this issue of *The Signal* shares news of the formation of Chapter 90, Southwest Florida, and I am pleased to welcome them to the family of SBE chapters. The group was officially granted chapter status in October and is chaired by Hal Kneller, CPBE, AMD, DRB, CBNE. The chapter welcomes all interested prospective members. Contact Hal at hkneller@earthlink.net if you're interested in attending the next meeting.



Outgoing SBE President Joe Snelson, CPBE, 8-VSB, and newly elected SBE President Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT, at the 2015 SBE National Meeting Awards Dinner.

industry and the SBE will serve the society well. We are fortunate to have leaders like these.

Next year, the SBE National Meeting makes a return trip to Columbus, OH, and the Ohio Broadcast Engineering Conference. The event is sponsored by the Ohio Association of Broadcasters, who was also our host in 2011.

Ongoing Partnerships

2016 will mark the 22nd consecutive year of the SBE's participation as program partner with the NAB in its Broadcast Engineering Conference (BEC), held as a part of the annual NAB Show in Las Vegas. The SBE participates on the BEC planning commit-



Engineering Perspective

By Mark Fehlig, PE, CPBE
Consulting Engineer
mfehlig@sbe.org

ATSC3 + Auction Repack = DTV Channel Sharing?

Many articles and in-depth papers/presentations on these subjects delve into the technologies and business/legislative rigors involved. Most are spot on along these lines but dodge innovative thoughts and solutions that may sprout from a higher-altitude solution perspective.

The policy and initiatives from the FCC, NAB, ATSC, CEA and various broadcasters lack the cohesive atmosphere that ushered in the DTV conversion of the past decades. The "super panel" at the May 2015 ATSC conference put this in sharp focus.

This panel included former FCC Chairmen Richard Wiley and Michael Powell, NAB President Gordon Smith and CEA President Gary Shapiro. It discussed the lack of FCC and Congressional championship for ATSC3. Even at the NAB there is not a formal endorsement, although this fact is couched in political cloud. Mobile ATSC3/datacasting/smartphone operation was not mentioned at all.

Mystically and without any follow-on comments since, there was also a great ATSC conference presentation from Alkami Networks detailing how the public Internet in the

near future can handle all broadcast video distribution (4K UHD) worldwide to match or exceed over-the-air (OTA) broadcasting. Statistics and technology from the recent World Cup and Olympics were detailed. Arguments to the contrary can cease. I applaud the ATSC for this presentation.

So it may appear that technically ATSC3 may not be needed nor in line to serve the demand for the majority of future video program distribution. With one exception: MPVD must carry and retransmission consent business continuation. This is a main concern of most broadcasters and often the main business reason for continuing to transmit OTA.

That is to simply qualify for a traditional and very lucrative federal law. Channel sharing is now offered to broadcasters as a DTV spectrum repacking choice that brings with it full MPVD must carry and retransmission consent rights.

Enter an ATSC3 innovative approach. With FCC approval of ATSC3 at individual broadcaster discretion, like-minded DTV broadcasters could squeeze up to four (or more) HEVC SD 16x9 programs on a single 6MHz DTV channel; Why not low-band VHF?

This would retain FCC MVPD (cable and DBS) must-carry rights, capture significant repack and channel sharing spectrum auction value to these broadcasters and greatly reduce RF OTA transmission costs to all involved in many markets. Full 4K UHD, "dot" multiplex channels and other datacasting payloads could be individually distributed to MVPDs and other interested parties via fiber optic/GigE circuits that are constantly reaching more destinations with declining cost. This interconnect is already a common practice for many reasons.

My prediction is that the above may come to be solely to preserve the MVPD must carry and retransmission consent rules as long as they are in force. Beyond that OTA high power broadcast transmission will be a fading and voluntary operation. Perhaps more discussion can follow on the OTA viewing public that may be affected; free ATSC3 dongles for all?

Memories of the DTV transmission adapters; how many are needed now?

The views of this article are those of the author and not necessarily those of the Society of Broadcast Engineers.



Chapter Engineer of the Year Awards

Several SBE chapters recognized chapter members with a chapter engineer of the year award. These individuals were also candidates for the Robert W. Flanders SBE Engineer of the Year Award.

1. Chapter 39 Tampa Bay, FL: Engineer of the Year Award Winner Roswell Clark, CPBE, CBNT (I), with Chapter Chairman Paul Kemper, CPBE.

2. Chapter 54 Hampton Roads, VA: Engineer of the Year Award Winner John Heimerl, CPBE (r), with Chapter Chairman Ray Lenz.

3. Chapter 70 Northeast Ohio: Engineer of the Year Award Winner Frank Foti (r) with Chapter Chairman John Hovanec, CSRE, AMD, DRB, CBNT, at the chapter's annual picnic at a miniature railway.

4. Chapter 118 Montgomery, AL: Engineer of the Year Award Winner Tom Jones, CPBE, CBNT (I) with Chapter Chairman Wiely Boswell, CBRE, CBNE.

- 305 Broadcast • 2015**
Anthony Gervasi 855-305-3058
Broadcast Equipment Supplier
- AC Video Solutions • 2014**
Andrea Cummis 201-303-1303
Consulting, Systems Design/Integration
- AEQ Broadcast International • 2015**
Peter Howarth 954-581-7999
Broadcast Audio, Video and Communications
- American Tower Corporation • 2000**
Peter A. Starke 781-461-6780
Development/Construction/Management
- Audemat-Worldcast Systems Inc. • 2000**
Christophe Poulain 305-249-3110
Control Manufacturer
- AVCOM of Virginia, Inc. • 2010**
Tom Pagonis 804-794-2500
Spectrum Analyzers
- AVDB Group • 2014**
Maria Cody 720-940-7131
Audio/Video/Lighting & Control
- Avid Technology • 2011**
Rich Griffin 303-248-3259
Broadcast Products and Services
- A-Ware Software/MusicMaster • 2014**
Shane Finch 352-351-3625
Advanced Music Scheduling Solutions
- Belden Electronic Division • 1991**
Steve Lampen 800-235-3361
Cable and Connectivity
- Black Box • 2014**
Brian Kutchna 724-873-6719
HD-KVM Switching & Extension
- Blackmagic Design • 2012**
Terry Frechette 978-337-0991
Switchers, Digital Cameras, Routers
- Bracke Manufacturing LLC • 2012**
Patra Largent 949-756-1600
RF & Microwave Components
- Broadcast Devices, Inc. • 2015**
Robert Tarsio 914-737-5032
Audio/RF Support Products
- Broadcast Electronics Inc. • 1978**
Tom Beck 217-224-9600
Radio Equipment Manufacturer
- Broadcast Microwave Services Inc. • 1997**
Jim Kubit 805-581-4566
Manufacturer, Transmitters, Receivers, Antenna Systems
- 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
- 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
- Comark • 2013**
Jack McAnulty 860-763-1100
Manufacturer Broadcasting Transmission Equipment
- Comrex Corporation • 1997**
Chris Crump 978-784-1776
Audio Codecs & Telephone Interface Products
- Comsearch • 2004**
Tim Hardy 703-726-5651
Frequency Coordination Services
- Continental Electronics Corporation • 1976**
Michael Troje 800-733-5011
AM & FM IBOC Transmitters
- CueScript • 2014**
Michael Accardi 203-763-4030
Teleprompting Software & Hardware
- Dakota Lighting Supply • 2015**
Randy Doremus 303-748-6241
FAA/Obstruction Lighting Products
- Davicom, Division of Comlab, Inc. • 2014**
Guy Fournier 418-682-3380
Site Remote Controls
- DEVA Broadcast • 2015**
Todor Ivanov 305-767-1207
Monitors, IP Audio Codecs, Broadcast Tools
- Dialight Corporation • 2006**
US Headquarters 732-919-3119
FAA Obstruct. Lighting, LED Based
- 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
- du Treil, Lundin & Rackley, Inc. • 1985**
Jeff Reynolds 941-329-6000
Consulting Engineers
- Drake Lighting • 2015**
Dave Sheppard 270-804-7383
FAA Obstruction Lighting - High Intensity
- DVE0 - Division of Computer Modules Inc. • 2011**
Laszlo Zoltan 858-613-1818
Everything About Transport Streams
- e2y • 1997**
Mark Strohecker 914-593-6831
Electronic Components, SATCom Amplifiers
- Econco • 1980**
Debbie Storz 800-532-6626, 530-662-7553
New & Rebuilt Transmitting Tubes
- Emerson Network Power/Avocent • 2014**
George Morgan 917-592-0956
Avocent High Performance KVM
- ENCO Systems Inc. • 2003**
Kenneth Frommert 800-362-6797
Audio Automation and Playout
- ERI - Electronics Research • 1990**
David White 812-925-6000
Broadcast Antennas, Transmission Line, Filters/Combiners, Towers and Services
- Floral Systems • 2008**
Shawn Maynard 877-774-1058
Television Broadcast Automation
- Frontline Communications • 2015**
Tracy Brink 727-280-8843
Broadcast Vehicle Manufacturer
- Fujinon, Inc. • 1986**
Thom Calabro 973-633-5600
Broadcast & Communications Products
- GatesAir • 1977**
Dave Hopson (TV) 513-445-5243
Mark Goins (Radio) 513-899-9124
Broadcast Equipment Manufacturer
- Geppo/General Cable • 1995**
Dennis Thompson 407-405-0756
Innovative Cabling & Custom Solutions
- Graham Brock, Inc. • 2012**
Marilyn Matherly 912-638-8028
Technical Consultation - Radio/TV
- HD Radio/iBiquity Digital • 2014**
Rick Greenhut 443-539-4335
HD Radio Technology
- Heartland Video Systems, Inc. • 2011**
Dennis Klas 920-893-4204
Systems Integrator
- IETC • 2014**
Matt Granard 425-286-1900
Global Connectivity Solution Provider
- Image Video • 1997**
Zach Wilkie 416-750-8872 x228
Under Monitor Tally Display Systems, Monitor Design and Manufacture Broadcast Equipment
- Inovonics Inc. • 2012**
Gary Luhman 831-458-0552
Radio Broadcast Equipment
- Integrated Microwave Technologies • 2009**
Elena Waldhuber 908-852-3700
Microwave Video Transmission and Receive Systems
- JAMPRO Antennas Inc. • 2011**
Alex Perchevitch 916-383-1177
DTV/DVBT & HD Radio-IBOC Solutions
- JVC • 2014**
Lon Mass 973-317-5117
Professional Video Products
- Ka You Systems • 2011**
George Gimourginas 301-585-4302
Audio, Video, IP - Satellite
- Kathrein USA Inc. • 1985**
Michael W. Bach 541-779-6500
Antennas for Broadcasting & Communications
- Kintronc Labs, Inc. • 2015**
Joaquin Raventos 423-878-3141
Radio Broadcast Antenna Systems
- LBA Technology Inc. • 2002**
Katie Sneed 252-757-0279
AM/MW Antenna Equipment & Systems
- LYNX Technik • 2007**
Steve Russell 661-251-8600
Broadcast Terminal Equipment Manufacturer
- Markertek Video Supply • 2002**
Andrew Barth 845-246-3036
Audio, Video, A/V Broadcast Supply
- Maxell Corporation of America • 1991**
Patricia Byrne 973-653-2423
Data/Broadcast Video Media
- Micronet Communications Inc. • 2005**
Jeremy Lewis 972-422-7200
Coordination Services/Frequency Planning
- Microwave Video Systems • 2011**
Warren J. Pareco 781-665-6600
Microwave Equipment Rental, Sales & Service
- Middle Atlantic Products • 2005**
David Amoscato 973-839-1011
Equipment, Mounting, Solutions
- Midwest Digital Corp. • 2015**
Brian Falatovich 708-790-4040
New and Used Broadcast Sales
- MoreCom Inc. • 2009**
Kyle Moorehead 763-533-5535
Networking & AV Construction
- Moseley Associates Inc. • 1977**
Dave Chancey 805-968-9621
Digital STLs AM/FM/TV
- 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**
Ralph Beaver 813-282-8612
Game Day Coordination Operations
- Nautel Inc. • 2002**
Jeff Welton 877-662-8835
Radio Broadcast Transmitter Manufacturer
- Nemal Electronics Int'l Inc. • 2011**
Benjamin L. Nemer 305-899-0900
Cables, Connectors, Assemblies and Fiber Optic
- Neutrik USA, Inc. • 2012**
Kathy Hall 704-972-3050
Ruggedized Optical Fiber Systems
- Orban • 2011**
David Rusch 480-403-8300
Audio Processing AMFMTV
- Pasternack Enterprises • 2001**
Christine Hammond 949-261-1920
Coax & Fiber Products
- Potomac Instruments • 2012**
Guy Berry 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
- 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**
Jay Martin 207-523-0990
Broadcast & Telecom Antennas & Systems
- RCS • 2003**
Diana Stokey 308-284-3007
Audio and Video Content Management
- RDL • 2004**
Chuck Smith 928-778-9678 x142
Audio, Video, Control & Test Equipment Manufacturer
- RF Specialties Group • 2008**
www.rfspecialties.com
Everything from the Microphone to the Antenna
- Rohde & Schwarz • 2003**
Walt Gumbert 724-693-8171
Broadcast Transmitters, Test & Measurement
- Ross Video Ltd. • 2000**
Darren Budrow 613-228-0688
Manufacturer, Television Broadcast Equipment
- Sage Alerting Systems Inc. • 2010**
Gerald LeBow 914-872-4069 x210
Emergency Alert Systems Products
- SCMS Inc. • 2000**
Bob Cauthen 800-438-6040
Audio and RF Broadcast Equipment Supplier
- Seacom 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 Salsci 818-840-6749
Routers, Mixers, Consoles, Intercoms
- Signiant • 2012**
Steve Gillen 781-221-4000
Signiant Content Delivery Software
- Silvus Technologies • 2015**
Mark Tommey 617-816-6588
Wireless Video Mesh Network
- Snell Advanced Media • 1995**
John Shike 818-556-2616
Video Equipment Manufacturer
- Solid State Logic • 2014**
Steve Zaretsky 212-315-1111
Digital Audio Consoles/Routers
- Staco Energy Products Co. • 2010**
Paul Heiligenberg 937-253-1191 x128
Manufacturer of Voltage Regulators, UPS
- Superior Electric • 1995**
Michael J. Miga 860-507-2025
Power Protection Equipment
- Sutro Tower Inc. • 1989**
Eric Dausman 415-681-8850
Broadcast Tower Leasing
- Tektronix Inc. • 1977**
Michael Brett 503-627-5888
Video Test & Measurement, Equipment Manufacturer
- Teletream • 2013**
Mark Wronski 530-470-1337
Transcoding, Captioning, Workflow Automation
- Telos Systems/Omnia/Axia • 2003**
Denny Sanders 216-241-7225
Telos Systems Talk-Show Systems
- Teradek • 2011**
Jon Landman 949-743-5783
Camera-top ENG Solutions
- Terrestrial RF Licensing Company • 2003**
Jennifer Smith 888-373-4832
FCC Broadcast Auxiliary Licensing Services
- The Durst Org. - 4 Times Square • 2004**
John M. Lyons, CPBE 212-997-5508
TV/FM/Microwave Tower Site
- The Switch • 2011**
Peter Hartz 323-645-8011
Fiber Transmission Provider
- Thomson Video Networks • 2014**
Matt Tietze 301-537-6288
Video Compression and Processing
- Tielne The Codec Company • 2003**
John Lackness 317-845-8000
POTS, ISDN, Codecs & A/V Products
- Unimar Inc. • 2001**
Thad Fink 315-699-4400, 813-943-4322
Tower Obstruction Lighting Designer, Manufacturer, Distributor
- Vislink Broadcast • 1991**
Mark Tommey 978-671-5700
Video Microwave Systems
- Volicon • 2015**
Russell Wise 781-221-7400
Broadcast Monitoring and Logging Solutions
- Wheatstone • 2010**
Jay Tyler 252-638-7000
IP Consoles, Routers & Processors
- WideOrbit • 2012**
Brad Young 214-923-6337
Broadcast Management Software, Automation and Master Control
- Wireless Infrastructure Services • 2006**
Travis Donahue 951-371-4900
Broadcast Microwave, Tower & ENG Installation, Integration Maintenance Services
- WnewTech Corporation • 2014**
Luiz Santiago 310-220-5664
Systems Integration

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Member Spotlight: Laura Mickler

Member Stats

First Joined the SBE: 1992

Certifications: CBT

Chapter: 90 Southwest Florida

Employer: Waterman Broadcasting

Position: Master Control Supervisor

Location: Ft. Myers, FL

I'm Best Known For: Getting involved in many duties and activities inside and outside my engineering department. Being passionate about Broadcasting.

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

A I enjoy the articles in *The Signal*, SBE-news, and online, and the continuing education in my field.

Q What got you started in broadcast engineering?

A I studied at Brown Institute in Ft. Lauderdale and initially wanted to be a TV sportscaster. The technical end really excited me, and I then changed my focus to engineering. I am thrilled and blessed to have been in this business for 37 years.



Laura Mickler in the NBC control room at Waterman Broadcasting.

Q Who was your mentor?

A My first chief engineer at WPBT, Graham Simmons, who wasn't afraid of hiring a very young female and giving me the training that I needed to succeed.

Q What do you find most satisfying in your job?

A The difference I make to ensure the best on air look to our clients and viewers.

Q When I'm not working I...

A ...am a big sports fan, especially baseball and football. I also love to bake, and since I am the only female in my department it is appreciated.

Q What has helped you the most in your career?

A Several things that have helped me in my career is that I am a great listener, not just in my department but anywhere I walk around in the station. You would be surprised what you can learn from really just listening. Get involved in all company functions to build team work. I have great interest in all things that make us the best station to watch.

SBE-news Roundup

SBE Chapter 90 Southwest Florida Formed

Following several organizational meetings and electing officers, SBE members in the area around Ft. Myers, FL, have organized Chapter 90. The SBE Board of Directors authorized the chapter at its October meeting in Madison, WI. Hal Kneller, CPBE, AMD, DRB, CBNE, is the chairman. Kevin Trueblood, CBNT, is the vice chairman, Bob Geckler is the secretary, and Jade McClelland is the treasurer.

As per the SBE by-laws, a chapter can be authorized after holding at least three meetings, having at least 10 SBE members, electing officers and adopt by-laws. Some members of Chapter 90 were previously attached to Chapter 39 Tampa Bay, but wanted a chapter closer to home.

Coming This Spring: SBE Compensation Survey

When taking a new job or hiring a new employee, having a benchmark to compare relative salaries is a valuable tool. As a benefit to SBE members, the SBE will conduct its first compensation survey in April. The online survey will explore compensation, benefits and workload for a range of technical job titles in the various radio and TV markets.

The online survey will be available through a link in all SBE outlets. Highlights will be shared as well, and the full report will be available to SBE members.

SBE Awards Program To See Revisions in 2016

The SBE National Awards Program, which recognizes individuals and SBE chapters for their outstanding efforts, undergoes periodic review. At the Board of Directors meeting in Madison, WI, the Awards Committee brought several proposed changes and updates to the Board for consideration. Some awards categories are being retired, while others are updating their criteria and scope. Details of the changes will be noted on the 2016 awards entry, which will open in January.

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.

THANKS TO THE FOLLOWING SUPPORTERS FOR THEIR CONTRIBUTIONS

ENNES SCHOLARSHIP

John Heimerl, Suffolk, VA
Kimberly Sacks, Washington, DC

YOUTH SCHOLARSHIP

John Heimerl, Suffolk, VA
Kimberly Sacks, Washington, DC

GREENBURG SCHOLARSHIP

John Heimerl, Suffolk, VA
Kimberly Sacks, Washington, DC

BATTISON SCHOLARSHIP

John Heimerl, Suffolk, VA
Kimberly Sacks, Washington, DC

Dues to Increase January 1

The SBE Board of Directors has approved a dues increase for most members, the first in three years, which will take effect on January 1, 2016. Dues for individual members in the Regular, Senior, Associate and Fellow categories will increase \$7 to \$82 per year. Dues for Student and Youth members will not increase.

"The increase will help keep the society's finances in solid shape," said SBE president, Jerry Massey. Massey added, "We've done a good job at managing our expenses but, like any business, our basic operational expenses do increase each year."

Dues from individual members account for about 46 percent of SBE annual revenue and another 10 percent comes from Sustaining Member (corporate) member dues. The remaining 44 percent comes from non-dues sources including educational courses, certification fees, book sales, and other areas. Massey said, "To maintain and further develop the level of service to members that we have, we need to ensure that we have adequate revenue. We are fortunate to have other revenue sources in addition to dues to help us meet our objectives."

The Board also approved to increase Sustaining Member dues to \$725 per year. That increase is also the first in three years.



May 29, 2015: El Paso, TX SBE Chapter 38 Hosted an Ennes Workshop covering AoIP, Ethernet STLS, and IP networking



Sept. 25, 2015: Joe O'Dwyer, president of O'Dwyer Technical Services, presents Electrical Safety for Broadcast Engineers at a Technical Presenters Group event at SBE Chapter 47 Los Angeles.



Oct. 27, 2015: Gary Adams of Blackmagic Design speaks during the New England Ennes Workshop, conducted by SBE Chapter 11 Boston and held during the Media Resource Expo.



Sept. 24, 2015: Wayne Pecena presented IP Networking for Broadcast Engineers Workshop at the Association of Central Canada Broadcast Engineers, Technologists and Technicians 64th Annual Conference.

WELCOME TO THE SBE

NEW MEMBERS

Rashawn J. Abraham - St. Thomas, VI
 John A. Allen - Odessa, FL
 Frank Alwine - Colchester, VT
 Calvin Bader - Louisville, KY
 Daniel P. Bay - Bend, OR
 Ryan N. Beal - Hobart, IN
 Ivan C. Benson - Valrico, FL
 Jeffrey S. Benson - Fort Bragg, NC
 Timothy W. Braddock - Long Valley, NJ
 John E. Brewer - Houston, TX
 Sara E. Brown - Waterbury, CT
 Donald R. Burris - Lillington, NC
 Ronald J. Cappiello - Vestal, NY
 Thomas A. Carlisle - Mesa, AZ
 Glen Cherry - Lake City, FL
 Jacob R. Conner - Lake Charles, LA
 Allyn TR De Ocampo - Quezon City, Philippines
 Derrick Dodson - Sacramento, CA
 Larry Eckblad - Mason City, IA
 David C. Farmer - Moody, AL
 Chris Fernick - Beamsville, ON
 Dennis Giroux - Plainfield, IL
 Dale B. Goodwin - Tampa, FL
 Philip M. Holton - Rockford, IL

Razan Ishak - Troy, MI
 Michael A. Jefferson - Indianapolis, IN
 Garland E. Jones, Jr. - APO, AE
 John C. Jones - Cheyenne, WY
 Michael Jones - Oklahoma City, OK
 Brent P. Kline - Centennial, CO
 Jesse Knapp - DeFuniak Springs, FL
 Luis C. Maldonado - Las Vegas, NV
 James A. Markus - Stamford, CT
 Jade McClelland - Fort Myers, FL
 Dave A. Morris - Erwin, NC
 Hung V. Nguyen - Garden Grove, CA
 Mauricio E. Novoa - Santa Fe Springs, CA
 Sean O'Brien - Dartmouth, MA
 Jonathan Palmer - Athens, OH
 Mark Payne - Menifee, CA
 Frank J. Mestre - Miami, FL
 Christopher M. Peeters - Bellevue, WA
 Marco Portuondo - Cape Coral, FL
 Gary Rixner - Scranton, PA
 Jacob Rue - Amarillo, TX
 Manny A. Ruiz - Menands, NY
 Troy Russell - Fenton, MI
 Angelo Sanchez - Anthony, NM
 Gary L. Smith - Chicago, IL

Carl D. Snyder - Lake Charles, LA
 Mark Spiller - Powhatan, VA
 Brandon C. Stephens - Bowie, MD
 Michael R. Stepp, Jr. - Fort Meyers, FL
 Arthur L. Strode, Jr. - Allen, TX
 Walter D. Strogoff - Champaign, IL
 John A. Svetlik - Burbank, CA
 Emmie T. Tran - Fort Meade, MD
 Wayne Traywick - Humble, TX
 Glenn L. Wells - Menifee, CA
 Michael J. Wines - Alexandria, VA
 Kevin R. Wooten - Jeffersonville, IN
 Dave Zur - Littleton, CO

NEW STUDENT MEMBERS

Kirsten R. Basinet - Bellingham, WA
 Sergio Cenicerros - San Diego, CA
 James A. Copeland - Manhattan, KS
 Larry C. Marini - Rexburg, ID
 Matthew D. Werkley - Bremerton, WA

RETURNING SENIOR MEMBERS

Robert A. Blanchard - Valencia, CA

RETURNING ASSOCIATE MEMBERS

Matthew Granard - Snoqualmie Pass, WA

RETURNING MEMBERS

David W. Agnew - Windsor, CO
 Ted J. Alexander - Columbus, OH
 Mark T. Baldrige - Hillsboro, WI
 Jeffrey R. Batten - Nashville, TN
 Annie L. Billings - Arlington, TX
 David W. Brown - Boynton Beach, FL
 Joseph H. Daniels II - Walkertown, NC
 Dale A. Hendel - Phoenix, AZ
 William S. Honigs - Boise, ID
 Paul W. Muskoff - Bottineau, ND
 Steven D. Miller - Clinton, MS
 Antonio E. Puell - Cliffside Park, NJ
 Robert V. Riddick - River Ridge, LA
 Tina M. Smith - North Little Rock, AR
 Orlando Valdivia - Houston, TX
 Paul Weaver - Hudsonville, MI
 Patrick N. Williams - Peoria, IL

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MEMBERS ON THE MOVE



▶ **Gary Stigall, CPBE**, is the assistant chief engineer at KGTV, San Diego.

▶ **Andrew Suk** will retire from Cordillera Communications on Dec. 31, 2015. He is the vice president of technology.



▶ **Michael Warren** now works for Tait Towers as a controls technician in the Lititz, PA, facility.

▶ **Tish Graham** has been named vice president, broadcast technology for the ABC-Owned Television Station Group. She was previously vice president of broadcast technology at ABC-owned KTRK in Houston.



▶ **Dylan Scott** has been promoted to technical operations manager for Cox Media Group's Tampa radio cluster.



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
Feb. 5 - 15, 2016 sbe.org/certification
Application deadline is Dec. 31 2015.

Webinar: IP Networking Troubleshooting - Part 3

Feb. 23, 2016 sbe.org/webinars

2016 NAB Show

Las Vegas
April 16 - 21, 2016 nabshow.com

SBE Certification Exams

2016 NAB Show
April 19, 2016 sbe.org/certification
Application deadline is March 18, 2016.

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