



the SIGNAL

raising the bar

2011

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

DECEMBER
2011

Volume 24, Number 6

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on the web yet?

www.sbe.org

SBE names awards to honor Flanders, Wulliman, Battison

For the first time in history, members of the SBE that have made significant contributions to the growth of the Society of Broadcast Engineers are honored with the re-naming of annual awards. Three awards are now named after SBE Members John H. Battison, Robert W. Flanders and James C. Wulliman, CPBE.

The announcement of two new award names was made on September 28 during the SBE Annual Membership Meeting,



SBE Founder John Battison speaks to the crowd with Immediate Past President Vinny Lopez.

in Columbus, Ohio. Flanders is recognized posthumously with the renaming of the SBE Engineer of the Year Award. Beginning with the recipient in 2012, the award will be known as

the Robert W. Flanders SBE Engineer of the Year Award. Wulliman, CPBE is recognized with the naming of the society's educator award. Beginning with the recipient in 2012, the

award will be known as the James C. Wulliman SBE Educator of the Year Award.

Flanders was director

See **AWARDS**
on page 11

SBE honors award recipients at National Meeting

Among the business meetings, shop talk, and seminars at the SBE National Meeting, members take time to celebrate the accomplishments of fellow engineers. Honors bestowed upon the SBE national award winners are among the highest distinctions in the broadcast engineering field.

Al Grossniklaus, P.E., CBNT, of Indianapolis, Ind. was awarded the SBE Broadcast Engineer of the Year Award. Steve Lampen, CBRE, of San Francisco, Calif. was honored with the SBE Educator of the Year Award.

Three members were elevated to the Fellow



Left Al Grossniklaus, P.E., CBNT is the SBE Broadcast Engineer of the Year. **right** Steve Lampen, CBRE, is the SBE Educator of the Year. The honors are among those recognized at the SBE National Meeting.

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We had been struggling for about a year to find a reliable audio STL to our transmitter site on top of a mountain in Warrenton, VA. The telco lines degraded every time it rained, causing dropouts in our T1 and ISDN service. This summer, when services that did not rely on the leaky copper cables were finally built out at the site, we tried a pair of BRIC-Links on our new broadband Internet service. We've kept our transmitter on them ever since. We're going to be purchasing more pairs of these units to feed audio to our other sites."

David Kolesar, Senior Broadcast Engineer
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the **SIGNAL** is published bimonthly by the Society of Broadcast Engineers, Inc., 9102 North Meridian Street, Suite 150, Indianapolis, IN 46260. Questions/comments regarding editorial content, or design should be referred to Hannah Trowbridge at (317) 846-9000 or htrowbridge@sbe.org. For advertising, contact Debbie Hennessey at dhennessey@sbe.org. SBE is a registered trademark of the Society of Broadcast Engineers.

Ennes Workshop opens BEC

The first day of the NAB Broadcast Engineering Conference (BEC) at the 2012 NAB Show in Las Vegas will feature the annual Ennes Workshop, presented by the Society of Broadcast Engineers and the Ennes Educational Foundation Trust. Fred Baumgartner, CPBE, CBNT is organizing an impressive array of speakers who will address this year's theme, Video and Audio on IP to IPTV.

The Ennes Workshop will begin at 8 a.m. on Saturday, April 14 at the Las Vegas Convention Center. The BEC continues through noon, Thursday, April 19. The Ennes Workshop program is a part of the BEC so those who wish to attend must be registered for the full BEC.

Here is a list of the topics and speakers confirmed as of November 11.

- "The Broadcast Engineer in an IT World: What Do I Need to Know and How Do I Learn IT?" presented by Wayne Pecena, director of engineering at Texas A&M University Educational Broadcast Services, College Station, Texas.

- "The Tube Sound—Fact or Fiction?" presented by Jerry Whitaker of Morgan Hill, Calif. Whitaker is vice president of

Standards Development at the Advanced Television Systems Committee (ATSC).

- "Broadcasting and the Cloud" presented by Stan Moote, vice president of Corporate Development, Harris Broadcast, North York, Ontario; Al Kovalick, Technical Strategist, Avid, Santa Clara, Calif. and Richard Folio, Director, Harris Cyber Integrated Solutions, Melbourne, Fla..

- "IBM Case Study: Broadcast Management Cloud for Fuji TV" presented by Katsushi Yamashita, chief technology officer at IBM Japan Cloud Computing in Tokyo, Japan.

- "Chyron Cloud Case Study" presented by Greg Lennon, director of Product Management & Product Manager, Cloud Services, Chyron, Colorado Springs, Colo.

- "Standards Update" presented by Peter Symes, director of Standards & Engineering at the Society of Motion Picture and Television Engineers in White Plains, N.Y.

- "Evolved Multimedia Broadcast/Multicast Service" presented by G. Kent Walker, vice

See **CONFERENCE** on page 11

Fellowship committee accepts nominations

If a member has made a difference in an SBE chapter over a long period of time; someone who has exhibited a dedication to the advancement of the broadcast engineer, the field of broadcast engineering and the Society of Broadcast Engineers, consider nominating him or her for the SBE Fellow rank of membership. The SBE is currently accepting nominations for 2012.

The Fellow designation is the highest level of membership and recognition presented

See **FELLOW** on page 12

Trowbridge joins SBE

SBE Executive Director John Poray, CAE is pleased to announce that Hannah Trowbridge has joined the SBE national office staff as communications manager. Hannah is responsible for designing and editing the society's print publications, including the Signal, producing press releases, electronic communications to members, managing the SBE website and social network outlets.

Trowbridge's experience includes time at Indiana University as a marketing specialist and owning an event and graphic design studio. She graduated with honors from Franklin College (Ind.) with a Bachelor of Arts degree, majoring in journalism: advertising/public relations and visual communications.



What's your
Certification Quotient?
Answer on Page 6

Question: Convert 1110 to Hex and Decimal.

- A) Hex=E, Decimal=12
- B) Hex=D, Decimal=13
- C) Hex=E, Decimal=14
- D) Hex=G, Decimal=15

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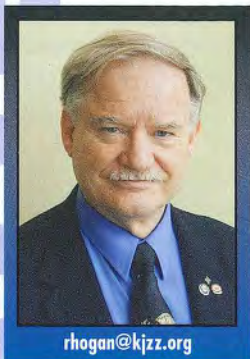
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Revitalizing the mentor, mentee relationship



by **Ralph Hogan, CPBE®, DRB™, CBNT®**
SBE President

One thing that has been lost over the years in the broadcast engineering arena is mentoring. Many years ago when just starting in broadcasting, I had the auspicious opportunity to participate in the construction of a broadcast facility from the ground up. This occurred during my last year of college in engineering and at the time had very little broadcast experience. The person hired as chief engineer took me under

his wing and made the time to show me how to properly install wiring in equipment racks and lace wire harnesses. This allowed for a neat installation and service loop for easy equipment servicing. Without such guidance from someone knowledgeable and experienced in doing things right, my skills may have turned out very differently.

Consolidation and downsizing have taken a toll on the broadcast engineering profession. A good number of knowledgeable engineers are still here but have multiple stations to look after and fewer resources to work with. Broadcast engineers are asked to continually, do more with less staff; this translates into long work hours and not much time to do anything else.

What is mentoring?

Mentoring is training - a senior or knowledgeable person in a company or organization who gives guidance and training to a junior coworker. A mentor is someone who has experience, able to communicate effectively with others, willing to share some career successes and failures, has gained wisdom and knowledge from their experiences, and can offer insight, guidance, and inspiration to another person. Their knowledge can come in many forms, depending on their experience level and years in the profession. They can provide guidance and also learn from their mentee. The working mentoring partnership is a learning and working experience in teamwork. The partnership can provide many insights into developing a life long professional relationship.

A mentee is someone who has a passion for learning. They may be new professionals in their first or second job or considering entering into the profession, recent graduates entering the professional workforce for the first time; or a professional making a career move or career change. They have made a commitment of time and energy to engage in a mentoring partnership in the hopes of learning from another professional "who has been there". The mentee should identify and clarify their developmental goals and expectations then select the mentor they feel best fits their goals.

Long distance partnerships

When most people hear of mentoring, they expect the partners will be geographically close so they can meet in person. Due to the geographic diversity of our membership, this is not always possible. In taking advantage of today's fast-paced global communications, the SBE can take mentoring further by offering the opportunity to have mentoring partnerships among members throughout the country and world. Large geographic distances should not hinder the beginning of a mentoring partnership.

When mentees begin their search for a mentor, they may find the perfect mentor located far from their geographic location. Although this can be a challenge, it does not need to be a major obstacle.

A long distance mentoring partnership may take more time and effort, so make sure the mentor you are selecting is for the right reason (career path, technical

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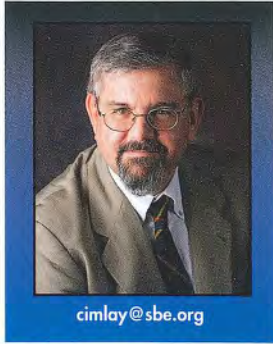
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See **PRESIDENT** on page 6

What you gonna do when they come for you?

Metal theft laws and broadcasting



by **Chris Imlay, CBT**
SBE General Counsel

Due to the now-epidemic level of copper and other metal theft at broadcast stations, some SBE members have recently suggested that SBE should include in its

legislative agenda the further criminalization of copper and other metal theft. Typically the suggestion is that we pursue legislation that would make stealing copper or other metal from a broadcast facility a felony. Because this is typically a state law matter, it is a daunting task to try to pass legislation at the state level in 50 states. This is especially problematic due to the typically short legislative sessions each year in the States.

The SBE Board of Directors talked about this at its meeting in Columbus, Ohio in September. The board decided to partner with state broadcast associations to pursue any necessary legislation. But what legislation is necessary? Metal theft is theft, and large quantity (i.e. large value) thefts are felonies in all states now. Smaller value thefts are misdemeanors. Let's look at what is out there already in the way of state and federal laws that might help stem the tidal wave of thefts from broadcast stations. The first state to look at always for leadership in state law is California, which regulates its residents from the cradle to the grave. California's Business and Profession Code Sections 21600-21609.5, enacted in 2008, provide that sellers and scrap metal dealers and recyclers (buyers) are required to provide and record the following information for non-ferrous materials:

1. The place and date of each sale or purchase. (B&P 21606(a)(1))
2. The name, valid driver's license number and state of issuance or California-issued identification card number, and vehicle license number including the state of issuance of any motor vehicle used in transporting the material. (21606(a)(2))
3. The name and address of each person. (21606(a)(3))
4. A description of the items purchased or sold, including the type, quantity, and identification number, if visible. (21606(a)(4))
5. A statement as shown on a signed

document indicating that the seller of the junk is the owner of it, or the name of the person from whom it was obtained. (21606(a)(5))

6. A photograph or video of the seller and material being purchased. (21608.5(a)(2)(4))

7. A copy of the valid driver's license of the seller containing a photograph and an address of the seller or a copy of a state or federal government-issued identification card containing a photograph and an address of the seller. (21608.5(a)(3)(A))

8. A thumbprint of the seller. (21608.5(a)(6)(A))

The careful regulation of the market for stolen metals is the proper place to stop the trafficking in them, and that is what has been lacking in the past. Eliminating the market for stolen metal means that you eliminate at least some of the basis for the theft in the first place. California has enacted a means of identifying the thief if the metal purchased later turns out to be stolen. Also included is a three-day waiting period before a seller can get paid for the metal. There are exceptions where the metal buyer has on file business license information about the seller, or where the value of the metal is less than \$20 in one transaction.

Florida is a bit more direct. Florida Statute 705.102(4) permits police to stop vehicles carrying large quantities of metal and requires the carrier to account for the origin of the metal. If the person in possession is unable to do so, he or she is subject to arrest and the seizure of the metal. Florida needs to enforce that statute too, because metal theft instances in 2011 in Florida have so far increased 254 percent since 2010 and 480 percent since 2009. The main reason for these radical increases is of course the increased value of copper and aluminum worldwide. I just heard from an SBE board member that his station had ten, 10-ton AC units stolen for the metal two weeks ago. Since then, replacements have been bolted into heavy metal cages. Due to the isolated locations of many transmitter sites, there is plenty of time to steal large quantities of metal at stations. There are gangs of metal thieves and a healthy black market in copper, the value of which has gone from 77 cents per pound in 2003 to well over \$4 per pound now.

North Carolina has a statute similar to that

of California. To sell scrap metals and junk cars to any licensed recycling company doing business in North Carolina, a state or federally issued identification card or driver's license is required. Credit cards, social security cards, debit cards, employer issued ID cards or online purchased IDs are not sufficient. No one can transact business using someone else's name, business name or ID. Selling copper, catalytic converters, HVAC parts or junk cars requires a fingerprint or thumbprint. A 2007 Georgia law makes it a crime to possess stolen metal, and it forces a convicted metal thief to make full restitution to the lawful owner of the stolen metal and allows prosecutors to prosecute based on how much it will cost to return the affected property to its original condition and not just the salvage value of the stolen metal. So, the legislation allows prosecutors a greater ability to seek a felony conviction, rather than a misdemeanor.

There is a little-known federal statute dealing with "Malicious Mischief" that might be brought to bear in metal theft cases from broadcast stations specifically. Title 18, United States Code, Section 1362 provides as follows:

Whoever willfully or maliciously injures or destroys any of the works, property, or material of any radio, telegraph, telephone or cable, line, station, or system, or other means of communication, operated or controlled by the United States, or used or intended to be used for military or civil defense functions of the United States, whether constructed or in process of construction, or willfully or maliciously interferes in any way with the working or use of any such line, or system, or willfully or maliciously obstructs, hinders, or delays the transmission of any communication over any such line, or system, or attempts or conspires to do such an act, shall be fined under this title or imprisoned not more than ten years, or both.

This section specifically applies to radio and television stations, and has since the 1940s. It is very, very old, and is typically not used in broadcast metal theft cases, but it sure seems to apply, doesn't it? The 10-year penalty makes violation of this statute a felony.

The point of this discussion is that the metal theft problem is most certainly not limited to broadcast stations. Broadcasters are not the primary targets. Thieves are stealing metal ranging from church rain gutters to beer

See **METAL** on page **6**

Industry experience determines certification eligibility

SBE certification levels are based on years of experience in the broadcast engineering field. At the time of re-certification one can apply to elevate his or her level of certification.

Certification levels include options for candidates with entry-level, five-years, 10-years and 20-years experience, as well as retired engineers. Engineers are not required to obtain certification levels in a progressive order. SBE Certifications are valid for five years, so engineers starting out in the industry can apply for entry-level certification and advance every five years throughout their career.

For example, a certified engineer that holds a five-year level certification including, CBRE, CBTE, CEA and CEV, who is eligible for re-certification, may consider applying for the Certified Senior Television or Senior Radio Engineer or re-certify at the same level.

Experienced engineers have the option to obtain a higher level of certification based on their preceding years in the industry with out having previously held a lower grade of certification.

For example, an engineer with 10 or more years of experience in the broadcast engineering field that has never been

previously certified may apply for a 10-year level certification including, Certified Senior Television Engineer or Senior Radio Engineer.

The exams consist of 50 multiple-choice questions. The senior exams also require the examinee to answer one of three essay questions. The exam is three hours in length and is open-book except for the essay portion of the test.

Applicants are encouraged to use the reference list of suggested books on the SBE website to study for exams. The SBE CertPreview is designed to help participants determine if they are prepared for all areas of the exam by providing sample questions. The SBE CertPreview now includes sample questions for the Digital Radio Broadcast Specialist exam.

Certification exams are arranged five times a year. An appropriate application must be completed and sent to the national office prior to the exam. Visit the SBE website for information on all SBE certifications. Candidates may contact Certification Director Megan Clappe with questions about which certification would be appropriate for them at (317) 846-9000 or mclappe@sbe.org.

Employer letter states achievement

A consideration when applying for certification is the option to request a letter be sent to an employer from the SBE president stating the achievement of SBE Certification. The letter states that a level of SBE Certification has been obtained, which confirms efforts for career advancement in the broadcast engineering field to an employer. Certification applicants can request an employer letter when completing a certification or recertification application. The employer letter is only sent when the applicant passes an exam.

2012 SBE Certification Exam Schedule

Dates	Location	Application Deadline
Feb. 3-13	Local Chapters	Dec. 31, 2011
April 17	NAB Show	March 23
June 1-11	Local Chapters	April 13
Aug. 3-13	Local Chapters	June 1
Nov. 2-12	Local Chapters	Sept. 14

PRESIDENT from page 4

competencies, management experience, professional/educational background and industry knowledge, etc.).

Ask yourself the question: "Would I be satisfied if I were unable to meet my mentoring partner face-to face?"

If travel opportunities exist or develop for one or both of the partners, would you be able to arrange extra time to visit the location of your mentoring partner?

Make a special effort to schedule your mentoring meetings at a convenient time and be diligent in keeping to the schedule. Utilize an agenda and focus on one or two topics at each meeting to stay on track with your action/development plans.

Forming a mentor program

I would like to see the SBE conduct a mentoring program that uses the "informal style" of mentoring, where the mentee self-selects their mentor from a database of available SBE members who have volunteered to participate in the program. The search criteria would be selected by the mentee and could be determined by their geographical preference or by technical competencies based on the mentors background and training.

Each participant in a mentoring partnership should be committed to giving time and effort to develop his or her partnership. They need an understanding of their role and responsibilities, and each partner needs to stay in touch and follow an action plan that defines goals and outlines expectations for the partnership, including but not limited to, use of phone, e-mail or video conference, length and frequency of meetings.

If a SBE program were in place, how would you go about being a mentor? Initially, you might complete forms that would capture your basic information, technical interests, educational background, and interests you bring to a mentoring partnership.

If in place a mentee might search the available mentors in the program to find someone who matches your mentoring needs. When a potential mentor is found, you could send an e-mail asking to begin a mentoring partnership. Once accepted, partners should begin discussing how the partnership will work and develop a mentoring action plan to achieve goals.

Members of the SBE who are interested in forming a program are encouraged to email development ideas or their desire to participate as a mentor or mentee to president@sbe.org.

C) Hex=E, Decimal=14

Question on page 3

METAL from page 5

keys to manhole covers to entire bridges. The thieves are motivated. There are high value targets; large numbers of potential targets; quick resale and, at least in the past, limited regulation of metal recyclers. But that is changing now, and broadcasters, though subject to increasing numbers of thefts, have a lot of company working on the problem. SBE will indeed confer with the broadcasters' associations to try to strengthen laws regulating metal trafficking, but there is plenty of law already out there and more on the way, properly aimed at reducing the opportunities to make quick money from the thefts. Check your own state laws on metal theft and see what is already out there. Let us know if the problem has not yet reached your state legislature, or if there is lax enforcement of metal theft statutes on the books.

CONGRATULATIONS

New SBE Certification Achievements

LIFE CERTIFICATION

Certified Professional Broadcast Engineers® and Certified Senior Broadcast Engineers® who have maintained SBE certification continuously for 20 years and are current members of SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment 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.

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Leonard Charles, Madison, Wis. – Chapter 24
Sim Kolliner, Holly Springs, N.C. – Chapter 93
Keith Sihlmann, Fort Myers, Fla. – Chapter 39

CERTIFIED SENIOR RADIO TELEVISION ENGINEER™ (CSRTE™)

Elliott Eckert, Jr., West Haven, Conn. – Chapter 15

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Clarence Bullock, Tucson, Ariz. – Chapter 32

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CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Mihai Scripcaru, Toronto, Ontario Canada

AUGUST EXAMS

“Thank you” Chapter Certification Chairpeople for your assistance

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CERTIFIED BROADCAST RADIO ENGINEER™ (CBRE®)

John Justin Tucker, Charleston, S.C. – Chapter 107

CERTIFIED BROADCAST TELEVISION ENGINEER™ (CBTE®)

John Mackey, Beaverton, Ore. – Chapter 124

8-VSB SPECIALIST™ (8-VSB™)

Scott Arthur, Albuquerque, N.M. – Chapter 34

SPECIAL PROCTORED EXAMS

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CLEVELAND INSTITUTE OF ELECTRONICS

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Trevor Armstrong, Bolton, Ontario Canada

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James Regis, Pine Forest, Fla. – Chapter 118
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NAPA VALLEY COLLEGE

Scott Heitman, Napa, Calif. – Chapter 40

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Danny Albro, Jamestown, N.Y. – Chapter 133
Michael Barry, Marengo, Ill. – Chapter 96
John Bittner, Flagstaff, Ariz. – Chapter 9
Charlie Edwards, Hixson, Tenn. – Chapter 113
William Hunt, Ocala, Fla. – Chapter 42

Carl Lewandowski, Pottstown, Pa. – Chapter 120
Darrell McCalla, Mountain Brook, Ala. – Chapter 68
Thomas Pearson, Cottage Grove, Ore. – Chapter 76
Stephen Peters, San Diego, Calif. – Chapter 36
Christopher Phillips, Redwood City, Calif. – Chapter 40
Don Shaw, Charlotte, N.C. – Chapter 45

CERTIFIED RADIO OPERATOR® (CRO®)

Michael Larivee, North Providence, RI
Brittany Lyles, Inglewood, Calif.
April Tessmer, APO, AE
Reginald West, Greenville, N.C.

PASADENA CITY COLLEGE

Matthew Brown, Tijuana, Calif.
Ricky Chairez, Burbank, Calif.
Chi On Chan, San Gabriel, Calif.
Miguel Florencio, San Gabriel, Calif.
Patrick Gonzaga, South Pasadena, Calif.
Amy Khuong, Rosemead, Calif.
Lance Lopez, Los Angeles, Calif.
Andrew Louie, San Marino, Calif.
Jorge Ochoa, Tujunga, Calif.
Andrew Oropeza, San Gabriel, Calif.
Alejandro Ortega, Montebello, Calif.
Jennifer Perez, Monrovia, Calif.
Augustus Yeakey, San Marino, Calif.

RECERTIFICATION

James Davis, Goreville, Ill.
Donald Dickerson, Indianapolis, Ind.
Mackenzie Duncan, Chagrin Falls, Ohio
Michelle Fry, Portland, Ore.
Jesus Gonzales, Los Angeles, Calif.
Cedar Graney, Eugene, Ore.
Eric Haynes, Raleigh, N.C.
Donna Morgan, Simi Valley, Calif.
Nick Podgurski, Los Angeles, Calif.

Victor Powell, Birmingham, Ala.
Andrew Schatz, Charlotte, N.C.
Nathan Szymanski, Boulder, Colo.
Robbie Thomson, San Antonio, Texas
Ferdinand Uy, Los Angeles, Calif.
Patrice Wade, Medford, Ore.
Reginald West, Greenville, N.C.

CERTIFIED TELEVISION OPERATOR® (CTO®)

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 TELEVISION OPERATOR® (CTO®)

Roy Amick, Columbia, S.C.
Jimmy Boone, Irmo, S.C. – Chapter 101
Marc Cobb, Los Angeles, Calif.
Joerg Eichfuss, Durham, N.C.
Rocco Lovero, III, Jacksonville, Fla.
Leslie Franzen, Madison, Wis. – Chapter 24

Craig Koster, Boise, Idaho
David Martinez, Houston, Texas
Paul Spinelli, Middle River, Md. – Chapter 46

CERTIFIED RADIO OPERATOR® (CRO®)

Nandini Sen, Chapel Hill, N.C. – Chapter 93



Start preparing for your Certification Exam today!

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2011 Society of Broadcast

MEETING from page 1

rank, the highest membership rank by the SBE: Chuck Kelly, Halifax, N.S.; Art Lebermann, CPBE, San Francisco, Calif.; Barry Thomas, CPBE, CBNT, Atlanta, Ga.

Others recognized include SBE Sustaining Member, Nautel, recipient of the SBE Technology Award for its Advanced User Interface (AUI) and associated productivity technologies. John Davis, CBNT, the recipient of the Best Technical Article Award for "Choosing a Network Switch for Audio-over-IP". Chapter 24, Madison, Wisc., the winner of the Best Chapter Website, Best Regional Convention and Best Chapter Newsletter awards.

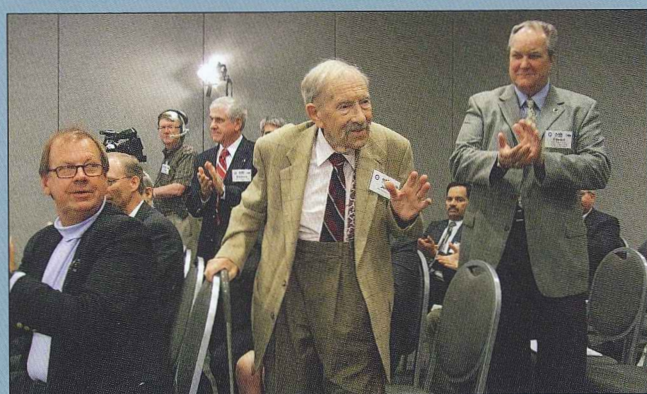
Statistical awards recognize two chapters, based on chapter enrollment. Class A

represents chapters whose membership is less than the national median. Class B includes chapters with membership greater than the national median. The award for Most Certified Chapter went to Chapter 118, Montgomery, Ala. in Class A and Chapter 131, Inland Empire in Class B. The Chapter with Greatest Percentage Growth of New Members Award was presented to Chapter 44, Shreveport, La. in Class A and Chapter 25, Indianapolis, Ind. in Class B. The Chapter with Highest Percentage Of Member Attendance at Meetings Award went to Chapter 136, Rio Grande Valley in Class A and Chapter 76, Eugene, Ore. in Class B.

Visit the Awards & Recognitions page on the SBE website for a complete list of past and present award recipients.



above Vinny Lopez delivers his final remarks as president of the SBE at the Annual Membership Meeting. Members not able to attend were able to view a live broadcast online. **below** Jerry Massey, treasurer; Jim Leifer, secretary and Joe Snelson, vice president, take the oath of office at the Annual Membership Meeting.



above Current and past presidents of the SBE assemble during the annual Fellows Breakfast. The reunion of; front, Chris Scherer, John Battison, Barry Thomas; back, Ralph Hogan, Vinny Lopez, Rick Farquhar, Chuck Kelly, Ed Miller and Ray Benedict is the largest gathering of SBE presidents. **below** Guest speaker, Kelly Williams, of the NAB Science & Technology Department addresses the crowd during the Annual Membership Meeting.

top left SBE Executive Director John Poray presents a gavel plaque to outgoing President Vinny Lopez. **top right** President Ralph Hogan takes the oath of office from SBE General Counsel Chris Imlay as new board member Ched Keiler, looks on. **above left** John Battison, SBE founder and first president, receives a hearty welcome at the Annual Membership Meeting. **above right** Secretary Ted Hand delivers his report during the Annual Membership Meeting. **right** SBE Founder John Battison waves his cane, acknowledging the crowd during the Annual Membership Meeting.



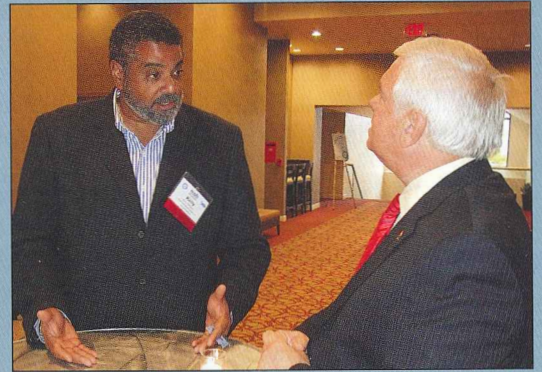
Engineers National Meeting



Barry Thomas, Chuck Kelly and Art Lebermann pose with their Fellow certificates after the National Awards Dinner. The men join the ranks of the other 66 current and past members with the highest distinction the society grants.



Steve Lampen, of Belden Co. accepts the SBE 2011 Educator of the Year Award from SBE President Ralph Hogan.



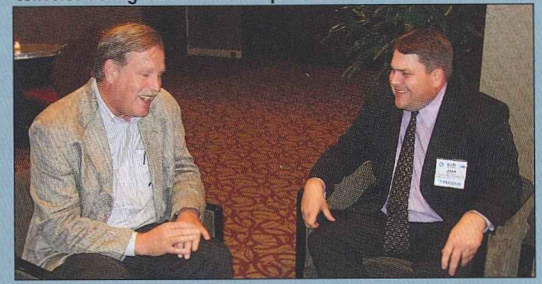
Kelly Williams of the NAB and Ralph Beaver, board member, converse during the Awards Reception before dinner.



SBE 2011 Engineer of the Year, Al Grossniklaus accepts the award during the SBE National Awards Dinner.



Chuck Kelly accepts the SBE Technology Award on behalf of Nautel, Inc., from President Ralph Hogan.



Ched Keiler, board member, and John Davis, winner of the best technical article award, visit during the Awards Reception.



Barry Thomas addresses current Fellow members of the SBE as he accepts his Fellow honor at the National Awards Dinner.



Ed Miller, Al Grossniklaus, Jerry Massey, Dick Burden, Gary Liebisch, Tim Anderson, John Davis, Ralph Hogan, Richard Wood, gather to display awards presented at the National Awards Dinner.

The SBE thanks the following sponsors:
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Live webinar opens society's 2012 education schedule

The SBE's first webinar of 2012 is "Chief Operator Responsibilities: What should I be doing?" on January 12 from 2-3:30 p.m. Instructor Dennis Baldrige, CPBE, 8-VSB, AMD, DRB, CBNT reviews the duties performed by station chief operators during the webinar.

Many chief operators come to this position with limited technical background; others are proficient with the technical aspects but are unfamiliar with all the requirements. The administrative responsibilities of the position will be described, such as station logs, EAS logs and official station records. Technical responsibilities, such as whether or not the station is operating by the rules, will also be explored. Other topics include accuracy responsibilities related to the record keeping, who the chief operator reports to and authenticating the station's records. In addition, sample templates of required documents will be provided to participants.

The cost for this live webinar is \$49 for SBE members and \$69 for non-members. The completion of this webinar qualifies for one credit, identified under Category I of the Recertification Schedule for SBE Certifications.

Baldrige has been working in the field of broadcasting for over 30 years. In addition to his company, Baldrige Communications, LLC, where he works as a contract engineer, he has authored several articles for Radio Guide, and is part of the SBE Technical Presenters Group.

For a reasonable fee and travel expenses, groups such as state broadcasters associations, broadcasting companies, SBE chapters and others have the opportunity to include a speaker of the SBE Technical Presenters Group in their next program. Speakers from the SBE Technical Presenters Group are generally available to speak across the country. For more information, contact Kimberly Kissel, education director, at kkissel@sbe.org or (317) 846-9000.

Scheduling of 2012 Ennes Workshops underway

Scheduling for the 2012 Ennes Workshops, presented by SBE is now taking place. The Ennes Workshops began in 1991 by the Ennes Educational Foundation Trust in an effort to bring affordable education to members locally. Workshops are typically one day long. The presentations are non-commercial and focus on technology. In addition, part of the day is devoted to separate seminar tracks for radio and television topics.

The SBE handles most of the details and planning to make it easy for SBE chapters to offer education programs to area members. Chapters interested in hosting an Ennes Workshop may contact Kimberly Kissel at (317) 846-9000 for more details.

SBE University offers 10 on-demand courses

SBE University consists of online, on-demand courses designed to provide relevant and convenient continuing education to broadcast engineers. Students have access to any course purchased for its entire life, including any updates. A complete listing of courses follows.

Television Video and Audio - a Ready Reference for Engineers

Author - Randy Hoffner

SBE Members: \$99 Non-Members: \$139

This course gives the television engineer a solid grounding in the various aspects of video and audio for television, and to serve as a ready reference to the pertinent standards. This course provides an overview of video and audio for television, from the dawn of analog television broadcasting to today's digital television transmission.

The New Lifecycle of Media - IP and File Based Architecture and Workflows

Author - Gary Olson

SBE Members: \$99 Non-Members: \$139

This course covers all technical considerations for a file based architecture and the changing roles and job responsibilities engineers have designing and maintaining these systems. Changes in workflow and business processes are also reviewed.

8-VSB

Author - Douglas Garlinger, CPBE, 8VSB, CBNT

SBE Members: \$99 Non-Members: \$139

The SBE 8-VSB course gives students an overview of the 8-VSB system from end to end, providing all the basic information needed to understand the nature of 8-VSB modulation and to recognize deficiencies

in the transmitted signal. This information will be invaluable in installing, maintaining and operating a digital television transmitter facility.

AM Antenna Computer Modeling

Author - Cris Alexander, CPBE, AMD, DRB

SBE Members: \$99 Non-Members: \$139

This course takes students through the modeling and measurement process specifically for AM broadcast antennas, providing a general understanding of the process and procedures as well as operation of the recommended software.

AM Antenna Systems

Author - Cris Alexander

SBE Members: \$65 Non-Members: \$85

This course takes students through every facet of AM antenna systems in all forms, dealing with each element or variation separately and together to show how they are used in concert.

Broadcast Audio Processing

Author - Stephen Poole, CBRE, AMD, CBNT

SBE Members: \$80 Non-Members: \$105

This course, intended for the intermediate-to-experienced broadcast engineer, takes a real-world approach to audio processing. Topics include loudness and the human ear, gain control, limiting and clipping, adjusting a wideband processor for voice and multi-band processing.

Computer Networking for Broadcast Engineers

Author - Paul Claxton, CPBE, CBNT

SBE Members: \$99 Non-Members: \$139

This course provides students with an introduction

to the fundamental concepts of computer networking. The course assists the broadcaster in passing the SBE Certified Broadcast Networking Technologist exam.

FM Transmission Systems

Author - Cris Alexander

SBE Members: \$80 Non-Members: \$105

This course helps students understand the proper design, installation and maintenance of FM transmission systems and how its components and variables impact the performance of an FM station.

Matching Networks and Phasing

Author - Cris Alexander

SBE Members: \$80 Non-Members: \$105

This course gives students an understanding of the various types of networks used in an AM transmission system, the situations in which each might be used and calculating the leg values thereof. It also discusses the phase budget for a phasing and coupling system and the use of power divider and phasing networks.

Voice Telco Networks & Studio Interface Systems

SBE Members: \$65 Non-Members: \$85

Author - Steve Church

The course provides radio and TV facility students with an understanding of how a signal gets from end to end, how to troubleshoot telco problems and how to properly interface broadcast equipment to the telco world.

AWARDS from page 1

of engineering at WRTV-TV in Indianapolis for many years and was the society's fifth president, serving from 1971 to 1973. He is credited with elevating the operations of the SBE to a more professional level, which set the stage for the society's future growth. Flanders was also instrumental in establishing a management training program for broadcast engineers in the early 1960's that lives on today as the SBE Leadership Development Course.

Wulliman, who is retired and lives in Arizona with his wife Ginny, served as director of engineering at WTMJ-TV in Milwaukee. He served as the SBE's sixth president from 1973 to 1975 and is one of three members credited with the creation of the SBE's certification program. He also guided the program through its first twenty years as its director and committee chairman. The program has become the preeminent engineering certification in the U.S. broadcasting industry, with more than 5,000 individuals holding SBE certification.

In April of 2011, the SBE announced its Lifetime Achievement Award would be renamed the John H. Battison SBE Lifetime Achievement Award, in honor of the society's founder. Beginning in the early 1960's, Battison worked for several years to create interest in a new organization devoted to the professional development of the broadcast engineer and the field of broadcast engineering. On April 5, 1964, the Society of Broadcast Engineers was created during a meeting at the annual convention of the National Association of Broadcasters in Chicago. The society, which started with 100 members at the first meeting, has grown to more than 5,000 members today, located in all 50 states and more than 20 countries.

The SBE Engineer of the Year and Educator of the Year awards were first presented in 1991. The SBE Lifetime Achievement Award was first presented in 1995. Nominations for these individual awards are now open for 2012. For a SBE National Individual Awards Nomination Form and a list of past recipients, visit the Awards and Recognitions page under About Us on the SBE website.

CONFERENCE from page 3

president of Technology at Qualcomm Inc., San Diego, Calif.

"IPTV" presented by Eric Wolf, Executive, Technology Strategy and Planning, Wendy Allen, vice president of Media Operations & Engineering, and Steve Scheel, senior director of Media Operations; all of Public Broadcasting Service, Arlington, Va.

Wrapping up 2011, embracing 2012

by John L. Poray, CAE

SBE Executive Director

Our SBE National Meeting was held back on September 27-28 in Columbus, Ohio and this is the first opportunity to share with you a few of the highlights of that event in the Signal. Certainly among them was the attendance of SBE founder and first president, John Battison and his wife Sarah, who live about 80 miles from Columbus in Loudonville, Ohio. At age 96, Battison's memory is quite sharp and he shared a number of stories during the day while attending the Fellows Breakfast, Membership Meeting and the National Awards Reception and Dinner.

Eight other past and current presidents joined Battison, perhaps a record attendance of top leadership of the SBE at the annual meeting. They included Rick Farquhar, Chuck Kelly, Ray Benedict, Chriss Scherer, Barry Thomas, Vinny Lopez and Ralph Hogan. It was a reminder of how fortunate the SBE has been to have so many dedicated broadcast engineers lead the organization over the years.

The Annual Awards Dinner featured the recognition of the SBE's major award winners for the year, including SBE Engineer of the Year, Al Grossniklaus, P.E., CBNT, of WTHR-TV in Indianapolis and SBE Educator of the Year, Steve Lampen, CBRE, of Belden Co. in San Francisco. Three members were elevated to the Fellow grade of membership, the SBE's highest; Chuck Kelly of Nautel in Halifax, Nova Scotia; Art Lebermann, CPBE of KGO/KSFO in San Francisco and Barry Thomas, CPBE, CBNT of Lincoln Financial Media in Atlanta. Our congratulations

- "Broadcast Workflow/Content Flow 2012" presented by John Footen, assistant vice president of Broadcast and Advertising and Ben Ropke, senior manager of Broadcast Consulting; both of Cognizant Technology Solutions, Teaneck, N.J.

- "ATSC's Future of TV" presented by Jim Kutzner, chief engineer of Enterprise Tech at Public Broadcasting Service, Alexandria, Va.

Frederick M. Baumgartner, CPBE, of Elizabeth, Colo. will serve as the chief moderator



go to these five members as well as our thanks for the contributions each has made to the society as well as the field of broadcast engineering.

The board of directors held its regular fall meeting during the National Meeting, approving the society's operating budget for 2012 with no increase in dues, national committee chair appointments for 2011-12 and naming two major awards after members who made significant contributions in the early days, and beyond, to the society (see the cover story in this issue of the Signal). Naming our educator and engineer awards after Jim Wulliman and Bob Flanders, respectively, serve to place their accomplishments at a level where they will always be remembered. The same holds for the John H. Battison SBE Lifetime Achievement Award, which was renamed in April 2011.

Our board worked to increase the corporate membership levels of the SBE in September and October. A four-week campaign to recruit new Sustaining Members was held and as a result, we welcomed eight companies as new members. The complete list of Sustaining Members is listed in every issue of the Signal. I encourage you to consider these companies when you make purchasing decisions involving equipment and services. They support the SBE financially and in other ways that benefit all members.

As we enter 2012 in a few short weeks, we look forward to introducing the new Certified Broadcast Networking Engineer certification and adding to our catalogue of SBE University courses and webinars by SBE. Hundreds of members have taken advantage of these courses and have found them helpful and of real value in their everyday work. We'll also make electronic voting for next summer's board of directors election available for the first time. I wish you the best during this holiday season and hope that 2012 will be a happy and successful year for you.

for the program. Baumgartner is the director of Broadcast Engineering at Harris Broadcast and serves on the SBE Education Committee and as a trustee of the Ennes Educational Foundation Trust.

More topics and speakers will be confirmed in the coming days. Watch for program updates from the SBE in the February 2012 issue of the Signal and on the SBE website, www.sbe.org.

FELLOW from page 3

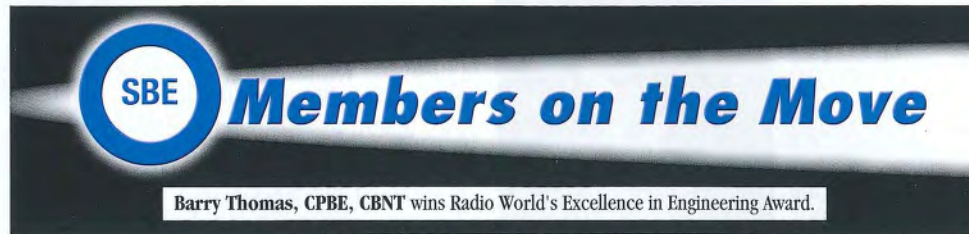
to members by the SBE. Members may earn the Fellow rank through several paths of achievement including conspicuous service, valuable contributions to the advancement of broadcast engineering or its allied professions, or by disseminating their broadcasting knowledge and promoting its application in practice. Seventy-seven members have been recognized with the honor in the society's 47 years of existence.

To nominate a member, candidates must

be proposed in writing by a voting member to the Fellow committee. The nomination must include a comprehensive professional history of the nominee and an explanation of why the candidate is deserving of the 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 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 2012 must be received by March 25, 2012 for consideration. The Fellow committee will bring the names of nominees to the board of directors for consideration and election at their April 2012 meeting. The SBE secretary will notify those elected. Awards will be presented at the SBE National Awards Dinner during the 2012 SBE National Meeting in Denver, Colo.

Submit nominations to Fellow committee Chair, Troy Pennington, CSRE CBNT, 6156 Hampton Hall Way, Hermitage, TN 37076 or to troy.pennington@cumulus.com.



WANTED WRITERS AND INSTRUCTORS

The Society of Broadcast Engineers has opportunities for topical experts to write online courses.

Honorariums are available.

For details visit the Education page on the SBE website.



A photograph of a piece of electronic equipment with several connectors and cables. The text "Moseley Digital STLs AM/FM/TV" is overlaid in blue. At the bottom right, the phone number "(805) 968-9621" and the website "www.moseleystb.com" are displayed.

In the Circle ... a snapshot of an SBE Member



Dennis Vigil, CSTE, 8-VSB, CBNT Chief Engineer for KRQE TV, KASA TV in Albuquerque, N.M. certification chairman for Chapter 34, Albuquerque, N.M.

Getting Started: When I was a little pre-school kid I used to gather up random objects from around the house, things like toys, a coffee pot, a skillet, a chair, a vacuum cleaner, etc. I would use wire and cord to connect all these objects together throughout the house. My mom would get home and ask me what I was doing. I would answer simply, "making connections". Although it was just child's play, in my mind I was creating some sort of spectacular electro-mechanical system to be used for something very important. I still make connections, but now my connections are part of very cool broadcast systems.

Sphere of Influence: In the mid 1990s I learned that the way in which you do things can be just as important as the things you do, and in some cases more important. This is just one of the things I learned from my mentor, Bill Hayes.

When I'm not working I ... spend time playing guitar. I have played music most of my life, and now I am really into classical guitar. I play in a chamber music group with other guitarists, and I attend classical guitar festivals when I can. Playing guitar, and spending time with my wife, Dedrea and two daughters Audra and Adriana, is what keeps me grounded (pun intended!).

Job Satisfaction: One of the most rewarding parts of my job is system design and installation. I get a great deal of satisfaction from taking a system from a conceptual idea, to a block diagram, to a detailed engineering drawing, and then building it and seeing it work as planned.

You may not know ... that before I started working in broadcasting, I worked as a freelance audio engineer in Denver after learning the art and science of audio engineering and sound reinforcement from a true icon of the recording industry. I studied with Bill Porter for two years. Porter was the audio engineer who recorded many of Elvis Presley's #1 hits, as well as many other artists.

Favorite Gadget: A high voltage traveling arc device, more commonly known as a Jacob's ladder.

Chapter Spotlight

Chapter 74 takes pride in programs

by Jim Skinner, CPBE, CBNT and Jim Leedham, CPBE, CBNT

SBE Chapter 74 of the Midlands is based out of Omaha, Nebraska. As the name Midlands implies we are regional in nature and serve Omaha and Lincoln, Nebraska, as well as Eastern Nebraska and Western Iowa.

Gale Totten, Chapter 74 founder, attended the first organizational meeting of the SBE in 1964 and therefore became a national charter member. The first organizational meeting of Chapter 74 took place in October 1979. The complete history of our chapter can be read as written by Totten at www.sbe74.org/sbe74history.html

Two basic ingredients allow Chapter 74 to thrive. We work hard to have good programs and keep the email newsletters flowing to as many people as possible.

About two newsletters are sent per month. We require that there is something of importance in each newsletter. That may seem obvious, but how many of us receive bulk emails that say little or nothing?

The program coordinator position is crucial to having success as a chapter. There are always interesting things to learn about, but the leg work to coordinate the meetings is no easy task. Gina Dierks has been our program coordinator for many years now. Finding new members is tough, but we believe if we have good programs, they will interest people to attend meetings and gain new members.

SBE Chapter 74 is in charge of setting up the presentations for the annual Nebraska Broadcasters Association Engineering Sessions. We feel the large attendance at the free sessions can be attributed to the interesting programs and great speakers, which we strive to achieve. When a company or vendor offers a program we make sure to explain that a technical training of their equipment is required, not a sales presentation.

Our goal is to have programs to educate our members and make them



Members of Chapter 74 discuss disaster recovery Wednesday, October 26. A recent flood in Nebraska brought the topic to the chapter's attention.

want to come back for more. Some of the past programs Chapter 74 has enjoyed include a tour of the Underground Command Center at Offutt Air Force Base and a visit to the Fort Calhoun Nuclear Power Plant.

Chapter 74 holds monthly meetings on the fourth Wednesday of every month except December. Chapter 74 celebrates the holiday season in January with a group dinner and theatre with our spouses or friends. In June, Chapter 74 has a picnic at Chalco Hills Recreation Area with SBE members and their families. A quick business meeting is conducted at both of these events although they are meant to be a social time with friends and family, so they are kept short.

A lot of work goes into keeping our chapter going. The chapter's success can be attributed to the officers, committee members and the group of folks that attend the meetings. Visit the Chapter 74 website at www.sbe74.org for more information.

Support these companies who support the industry and the Society of Broadcast Engineers

ADC Telecommunications Inc. • 1998

Anne-Marie Gunderson (952) 917-3072
Fiber and Copper Interconnect

American Tower Corporation • 2000

Peter A. Starke (781) 461-6780
Broadcast Tower Development/
Construction/Management

Anton/Bauer Inc. • 2004

Kyle Dann (203) 929-1100
Manufacturer Portable Power Systems

Audemat-Worldcast Systems Inc. • 2000

Christophe Poulain (305) 249-3110
Control Manufacturer

AVCOM of Virginia, Inc. • 2010

Warren "Buck" McElfresh
(804) 794-2500 ext. 312
Spectrum Analyzers

Avid Technology • 2011

Bill Barton (978) 640-4020
Broadcast Products and Services

Belden Electronic Division • 1991

Steve Lampen (800) 235-3361
Cable and Connectivity

Bexel • 2009

Garrick Lewis (818) 565-4314; Calrec
Broadcast and Audio Consoles

Broadcast Electronics, Inc. • 1978

Ray Miklius - Studio Products
Tim Bealor - RF (217) 224-9600
Radio Equipment Manufacturer

Broadcast Engineering Magazine • 1984

Bradley L. Dick (913) 341-1300
Journal of the Broadcast Industry

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

Communications Laboratories • 2008

Jared Maynard (321) 409-9898
Emergency Management Network

Comrex Corporation • 1997

Chris Crump (978) 784-1776
Audio codecs & Telephone Interface Products

Comsearch • 2004

Tim Hardy (703) 726-5651
Frequency Coordination Services

Content & Communications World (CCW) • 2006

Michael Driscoll (203) 371-6322
HD World, 3D World and SATCON

Continental Electronics Corporation • 1976

Michael Troje (800) 733-5011
AM & FM IBOC Transmitters

Dialight Corporation • 2006

US Headquarters (732) 919-3119
FAA Obstruction Lighting, L.E.D. Based

Dielectric Communications • 1995

Joe Zuba (609) 256-8190
or Matt Leland (207) 655-8139
TV & FM Broadcast Products

Digital Alert Systems, LLC • 2005

Bill Robertson (585) 765-1155
Emergency Alert Systems

DSI RF Systems, Inc. • 2010

Judy Mueller (732) 563-1144
RF Service/Installation/Products

du Treil, Lundin & Rackley, Inc. • 1985

Jeff Reynolds (941) 329-6000
Consulting Engineers

DVEO - Division of Computer Modules, Inc. • 2011

Laszlo Zoltan (858) 613-1818
Everything About Transport Streams

e2v • 1997

Mark Strohecker (914) 593-6831
Electronic Components, SATCom Amplifiers

Econco • 1980

Debbie Storz (800) 532-6626 or
(530) 662-7553
New & Rebuilt Transmitting Tubes

Elektronika America Inc. • 2010

Maria Quintero (305) 592-4506
High Efficiency FM/TV Transmitter & Exciters

ENCO Systems Inc. • 2003

Don Backus (800) 362-6797
Digital Audio Automation & Delivery

ERI - Electronics Research • 1990

David White (812) 925-6000
Broadcast Antennas, Transmission Line, Filters/
Combiners, Towers and Services

Florical Systems • 2008

Jim Berry (352) 372-8326
Television Broadcast Automation

Frontline Communications Corp. • 2000

Stephen Williamson (727) 573-0400, ext. 160
Manufacturer Broadcast Vehicles

Fujinon, Inc. • 1986

Thom Calabro (973) 633-5600
Broadcast & Communications Products

Gepco International • 1995

Dave Chapa (847) 795-9555
Audio, Video Cable Products

Grass Valley • 2000

Andy Jackson (404) 929-5000
TV/Film Production & Broadcast Professionals

Harris Corporation, Broadcast Communications Division • 1977

Dave Hopson (TV) (513) 445-5243
Mark Goins (Radio) (513) 899-9124
Broadcast Equipment Manufacturer

Heartland Video Systems, Inc. • 2011

Dennis Klas (920) 893-4204
Systems Integrator

Henry Engineering • 2011

Hank Landsberg (626) 355-3656
"We Build Solutions"

High Resolution Systems • 2011

Drew Taylor (888) 742-7690 ext. 108
Systems and Show Control

Image Video • 1997

Zach Wilkie (416) 750-8872 ext. 228
Under Monitor Tally Display Systems, Monitor
Design and Manufacture Broadcast Equipment

JAMPRO Antennas, Inc. • 2011

Alex Perchevitch (916) 383-1177
DTV/DVBT & HD Radio-IBOC Solutions

Kathrein Inc., Scala Division • 1985

Michael W. Bach (541) 779-6500
Antennas for Broadcasting & Communications

Ka You Systems • 2011

George Gimourginas (301) 585-4302
Audio, Video, IP - Satellite

Kintronix Labs, Inc. • 2010

Eric Miramontes (423) 878-3141
AM HD Antenna Systems

KPFF Consulting Engineers • 2004

Madison Batt (206) 926-0508
Tower Engineering, Inspections Design

L-3 Communications Electron Devices • 2003

Steve Blik (570) 326-3561, ext. 229
Tubes, Power

Latakoo, Inc. • 2011

Rod Taylor (512) 825-8709
Internet Video Distribution

LBA Technology, Inc. • 2002

Jerry Brown (252) 757-0279
AM/MW Antenna Equipment & Systems

Lincoln Financial Media • 2007

Barry Thomas (404) 261-2970
Media Group Owner

LYNX Technik • 2007

Steve Russel (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 (201) 794-5900
Data/Broadcast Video Media

Micronet Communications, Inc. • 2005

Jeremy Lewis (972) 422-7200
Coordination Services / Frequency Planning

Micronetix Communications, LLC • 2011

Bill Ammons (480) 496-0165
Polarized DTV Broadcast Antennas

Microwave Video Systems • 2011

Warren J. Parece (781) 665-6600
Microwave Equipment Rental, Sales & Service

Middle Atlantic Products • 2005

David Amoscato (973) 839-1011
Equipment, Mounting, Solutions

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

National Association of Broadcasters • 1981

(202) 429-5340
Industry Trade Association

National Football League • 1999

Ralph Beaver
Game Day Coordination Operations

Nautel, Inc. • 2002

Jeff Welton (877) 662-8835
Radio Broadcast Transmitter Manufacturer

Nemal Electronics Int'l, Inc. • 2011

Benjamin L. Nemser (305) 899-0900
Cables, Connectors, Assemblies and Fiber Optic

NSOEM • 2010

Robert Sorbet (281) 500-8940
Electrical Equipment Sales

NuComm/RF Central • 2009

Don Hoeler (908) 852-3700 ext. 3110
Digital and Analog Video Microwave Systems

Orban • 2011

David Rusch (480) 403-8300
Audio Processing AM/FM/TV

OTL • 2010

Sylvain Theriault (450) 444-7009
Tower Lights (Lighting)

Panasonic Solutions Company • 1985

Joe Facchini (201) 392-6183
Professional Broadcast Equipment

Pasternack Enterprises • 2001

Christine Hammond (949) 261-1920
Coax & Fiber Products

Prime Image, Inc. • 1997

Rodney Hampton (408) 867-6519
Digital Audio/Video Equipment

ProAudio.com - A Crouse-Kimzey Co. • 2008

Mark Bradford (800) 433-2105 ext. 560
Proaudio Broadcast Equipment Distributor

Propagation Systems Inc. - PSI • 2010

Doug Ross (814) 472-5540
Quality Broadcast Antenna Systems

Pulsecom • 2003

Winnie Evans (703) 471-2926
AM, FM and HD STLs, Copper & Optical

Quintech Electronics and Communications Inc. • 2002

Paul Campagna (724) 349-1412
State-of-the-art RF Hardware Solutions

QVC • 2011

Kevin Wainwright (484) 701-3431
Multimedia Retailer

Radian - A Division of Prestige Telecom Inc. • 1986

John McKay (866) 4-RADIAN
Towers, Antennas, TV Installation

RCS • 2003

Diana Stokely (308) 284-3007
Audio and Video Content Management

RDL • 2004

Chuck Smith (928) 778-9678, ext. 142
Audio, Video, Control & Test Equipment
Manufacturer

RF Specialties Group • 2008

www.rfspecialties.com
Everything from the microphone to the
antenna

Richland Towers • 2001

David Denton (813) 286-4140, ext. 4235
Tower Owner/Management

Rio Steel & Tower • 2010

Keith Cendrick (817) 225-0890
Turn-key Tower/Antenna Services

Rohde & Schwarz • 2003

Eddy Vanderkerken (469) 713-5322
Broadcast Transmitters, Test & Measurement

ROSCOR Corporation • 1998

Tom Voigts (847) 299-8080
DTV System Integrator

Ross Video Ltd. • 2000

Kyle Luther (613) 652-4886
Manufacturer, Television Broadcast Equipment

Sage Alerting Systems, Inc. • 2010

Gerald LeBow (914) 872-4069 ext. 210
Emergency Alert Systems Products

Salzbrenner Stageteq Media Group • 2009

(888) 782-4391
Professional Audio Solutions

SCMS, Inc. • 2000

Bob Cauthen (800) 438-6040
Broadcast Equipment- New/Used

Screen Service America • 2010

Graziano Casale (212) 695-8341
Broadcast Transmitter & ATSC Mobile

Seacom Erectors, Inc. • 1997

John Breckenridge (360) 793-6564
Tower/Antenna Erections

Shively Labs • 1996

David Allen 888-SHIVELY
FM Antennas & Combiners

Sierra Automated Systems and Engineering, Inc. • 2011

Cam Eicher (818) 840-6749
Routers, Mixers, Consoles, Intercoms

Sigmat • 2008

Ed Portko (610) 783-6666
Broadcast Equipment Support Sales

Snell Inc. • 1995

John Shike (818) 556-2616
Video Equipment Manufacturer

SpectraRep • 1998

Mark O'Brien (703) 802-2975
Coverage Maps and Services

Staco Energy Products Co. • 2010

Paul Heiligenberg (973) 253-1191 ext. 128
Manufacturer Voltage Regulators, UPS

Stainless LLC/Doty-Moore • 2004

Ed Deetscreek (215) 631-1323
Towers - Engineering - Services - mods

Superior Electric • 1995

Michael J. Miga (860) 507-2025
Power Protection Equipment

Sutro Tower, Inc. • 1989

Eric Dausman (415) 681-8850
Broadcast Tower Leasing

TC Electronic • 2008

Ed Simoneone (818) 665-4902
DTV Audio Level Processing

Technostrobe • 2009

Francis Lacombe (877) 578-7623
FAA lights - High Intensity

Tektronix, Inc. • 1977

James Lang (800) 833-9200
Video Test Equipment Manufacturer

Telos Systems/Omnia/Axia • 2003

Denny Sanders (216) 241-7225
Telos Systems - Talk-Show Systems

Terrestrial RF Licensing Company • 2003

Steven Slocum (888) 373-4832
FCC Broadcast Auxiliary Licensing Services

The Durst Organization - 4 Times Square • 2004

John M. Lyons, CPBE (212) 997-5508
TV/FM/Microwave Tower Site

The Switch Company • 2011

Peter Hanz (323) 645-8011
Fiber Transmission Provider

The Whitlock Group • 2000

Kevin Thompson (800) 726-9843
Broadcast and Presentation Solutions

Tieline Technology • 2003

Mary Ann Seidler (317) 845-8000
POTS, ISDN, Codecs & A/V Products

TV Magic • 2008

Bob Anderson (858) 650-3155
Broadcast Systems Integrator

Unimar, Inc. • 2001

Thad Fink (813) 643-6791 or (813) 943-4322
Tower Obstruction Lighting Designer,
Manufacturer, Distributor

Vantage Technology Consulting Group • 2011

Andrea Cummis (212) 520-8422
Broadcast Consulting Services

Vislink News and Entertainment • 1991

Mark Tommey (978) 671-5700
Video Microwave Systems

Ward-Beck Systems Ltd. • 2004

Michael Jordan (416) 335-5999
Metering, Monitoring, Distribution, Conversion

Wheatstone • 2010

Jay Tyler (252) 638-7000
IP Consoles, Routers & Processors

Wireless Infrastructure Services • 2006

Travis Donahue (951) 371-4900
Broadcast Microwave, Tower and ENG
Installation, Integration Maintenance Services

Welcome New SBE Members:

Members

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David H. Parris - Christiansted, Virgin Islands
Benjamin M. Pecarina - APO, AE
Glenroy A. Roberts, Sr. - Christiansted, Virgin Islands
Wanda Wood - Castalian Springs, Tenn.
Robert Clarke - Dededo, Guam
James J. Conley - Huntingtown, Md.
John R. Scott - Lake Charles, La
Mihai Scripcaru - Toronto, Ontario
Bishop L. Ellison - Fleming Island, Fla.
Robert N. Boxer - Buffalo Grove, Ill.
Cliff Gawel - Whippany, N.J.
William D. Hunt - Ocala, Fla.
Paul W. Johnson - LaGrange, Calif.
Andrew T. Johnson - Wharton, N.J.
Leon J. Urban - Snellville, Ga.
Chris Sampson - New Port Richey, Fla.
Carl L. Lewandowski - Pottstown, Pa.
Steve Sagady - San Diego, Calif.
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Jeffrey Harmison - Athens, Ohio
Geoffrey W. Graves - Newmarket, N.H.
David L. Felix - Newark, N.J.
Edward Kothera - St. Augustine, Fla.
Michael McGuire - Mason, N.H.
Philip J. Peters - Virginia Beach, Va.
Ken F. Prescott - Presque Isle, Maine
Michael J. Quealy - Chelsea, Maine
Michael E. Barry - Morengo, Ill.
Van T. Nguyen - White Bear Lake, Minn.
William Onyski - Southwick, Mass.
Ronald G. Brown - Cambridge, Canada
Brett R. Hancock - Holland Landing, Canada
Shane Emery - Jacksonville, Fla.

Reinstated Members

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Duane M. Smith - Jacksonville, Fla.
John P. Bittner - Flagstaff, Ariz.
Charles F. Daniels - Helotes, Texas
Michael R. McNamara - Boston, Mass.
Ben Quintanilla - Granada Hills, Calif.
Paul J. Gonzalez - Torrance, Calif.
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Jan P. Andrews - Alexandria, Va.
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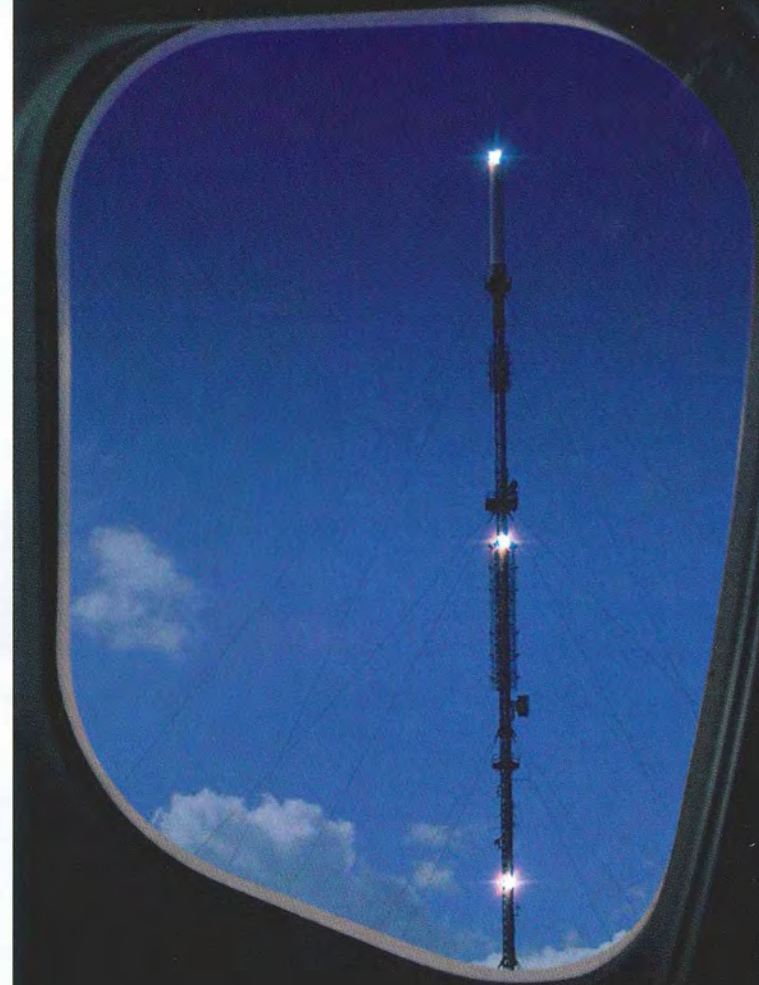
Student Members

Daniel C. LeBeau - Kent, Ohio
Erik P. Mahoney - Burbank, Calif.
Eric D. Kuglin - Chandler, Ariz.
Quara Gant - Kent, Ohio
Robert J. Barton - Concord, N.H.
Christopher C. Daniels - University Place, Wash.

Associate Member

Nick Loveland - Nutley, N.J.
Bill Smith - Roanoke, Va.

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