



the

# SIGNAL

raising the bar

2011  
SBE

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

**FEBRUARY  
2011**

Volume 24, Number 1

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on the web yet?

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## SBE... Raising the Bar



vlopez@sbe.org

by **Vinny Lopez, CEV®, CBNT®**  
SBE President

**W**hile trying to decide what to write about each month, I often bounce ideas off the national office staff, since writing is not one of my best points (hey, I'm a broadcast engineer ya know). After some debate, I decided to discuss our national theme for the year 2011, and what SBE has done to provide the tools for our members to reach their goals.

*Raising the Bar* will be the yearly theme for SBE in 2011. We were looking for something that

would spotlight our educational missions and programs and their benefits for our 5500 plus members.

Time for a history lesson. In 2008 at the winter Executive Committee (EC) Meeting in Atlanta, the EC voted to expand the educational offerings of the Society. Part of that proposal was the creation of a full-time staff position of Education Director, which was filled by Kimberly Kissel. We all knew that it would be a few years before we really started to see a "return on our investment" so to speak, but the board was prepared to move forward with all possible dispatch.

SBE has decided that 2011 will be the year that we make the big push to take the education

See **PRESIDENT'S LETTER** on page 4

## SBE at the 2011 NAB Show

### Schedule of SBE Events and Meetings

**T**he Society of Broadcast Engineers has been NAB's organizational partner for the presentation of the NAB Broadcast Engineering Conference (BEC) since 1995. Following previous years, this year's BEC will be the largest and most comprehensive broadcast technical conference in the world. The conference begins with the SBE Ennes Workshop on Saturday, April 9 and ends on

Thursday, April 14. SBE will be very active with a full slate of meetings and events and will have a busy exhibit booth during the week.

#### SBE Exhibit Booth

SBE's exhibit booth will be on the second floor concourse of the Las Vegas Convention Center South Hall, Lobby Booth 29. The location

See **2011 NAB SHOW** on page 10

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"We use BRIC-Links for our main STL on 107.7 FM, one of the satellite stations for WTOP, with very good results. I was pleasantly surprised at just how easy it is to set up a pair of BRIC-Links out of the box. I had my final configuration within ten minutes of powering up the units. We're running AAC audio that sounds every bit as good as the circuits to our other transmitter sites.

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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# Win in the 2011 Membership Drive **raising the bar** 2011

**T**he 2011 Membership Drive begins on March 1st and concludes on May 31st. *Raising the Bar* is this year's membership drive theme.

With the numerous educational opportunities, networking, professional certifications and more, *Raising the Bar* signifies the higher level you can take your career to by being an active and certified member of the SBE. A growing membership helps make the Society strong – and SBE can raise its bar even higher with more members. SBE is the only organization devoted to the advancement of all levels and types of broadcast engineering. Through its members, SBE provides forums for the exchange of ideas, where sharing information helps you keep pace with the rapidly changing industry.

Help engineers you know raise their professional bar. Introduce them to the Society and its many career enhancement opportunities and personal benefits.

Maybe there is someone on your staff who is somewhat new to broadcast engineering. Perhaps you know a student who has an interest in our profession. What better way to help someone reach his or her goals by introducing him or her to SBE's certification program, SBE's education programs and SBE JobsOnline? Make your local chapter stronger with the newest SBE member you recruit. Recruiting more members means raising the bar in networking opportunities. Recruiting a new member helps the Society help you.

The SBE will reward you with every new member you recruit. With each new member, your name will be entered in the Membership Drive prize drawing. You receive five entries for each Sustaining Member you recruit.

This year's grand prize is a trip to the SBE National Meeting in Columbus, Ohio September 27-28, which includes airfare for one to Columbus from within the

continental US and two nights stay at the Crowne Plaza Downtown Hotel.

Other prizes include:

- (2) Kathrein AON 65 UHF-TV antennas, courtesy of Kathrein Inc., Scala Division
- (1) Trifield Meter, courtesy of Middle Atlantic Products
- (2) Logo Polo Shirts, courtesy of Middle Atlantic Products
- (2) Logo Polo Shirts from Broadcast Electronics
- And Many More Prizes to Come!

You also receive five dollars off your 2012 membership renewal for each new member you recruit (up to \$25), which means everyone is a winner! *Raise the Bar* this year and recruit even more members than last year and help the Society, *Raise the Bar* for you.



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**FEBRUARY 2011**

# Candidates sought for SBE national board of directors

**T**he SBE exists because of the volunteer efforts of members like you at the local and national level. The SBE Nominations Committee is currently seeking candidates to run in the summer elections for the upcoming term. Capable members from all corners of the field of broadcast engineering are needed to serve. To be eligible, candidates for national office must be Member, Senior or Life members of the SBE, or be the designated representative of an SBE Sustaining Member, in good standing. All candidates must also hold a current SBE engineering-level certification and must maintain that certification through all terms of office. All of the directors serve in an "at-large" capacity.

Directors serve terms of two years and are expected to attend two full meetings of the board each year. These meetings are held in the spring during the NAB Show, and in the fall during the SBE National Meeting. Terms of officers are one year. Officers are expected to attend the two full meetings of the board plus two meetings of the executive committee, which are held during the winter and summer.

Members of the board may be appointed by the president to serve as a chairman or as a member of a national committee. All those who serve must be willing to cover their own travel expenses to attend the meetings. Some employers and chapters have helped cover this expense for some members of the board in the past.

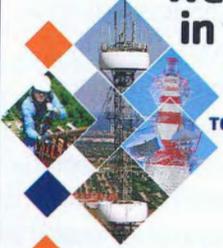
Members interested in serving the SBE as a member of the national board are encouraged to contact the chairman of the SBE Nominations Committee, Ted Hand, CPBE, 8-VSB, AMD, Chief Engineer with WSOC-TV/WAXN-TV in Charlotte, N. Car. Ted is also a current member of the Board, serving as national secretary. He can explain the duties and responsibilities to you in detail and answer any questions you may have. You can reach Ted at ted.hand@coxtv.com or (704) 335-4732.

The Nominations Committee must submit its list of candidates to the SBE National Office by April 29, so if you are interested, be sure to contact Ted before that date.

Election ballots will be mailed no later than July 25 to all voting members. The results will be known on August 25 when all the ballots mailed to SBE National Headquarters are counted by the official board of tellers. Those elected will be inducted into office on September 28 during the SBE National Meeting, which will be held in Columbus, Ohio, in conjunction with the Ohio Association of Broadcasters annual OAB Engineering Conference, in cooperation with the SBE chapters of Ohio.

Please consider contributing your leadership and experience to the Society by offering to run as a candidate, and if elected, serving as a member of the national board of directors. Not only will your Society benefit from your leadership, but you'll benefit too, as you develop friendships and strengthen your professional network with other members from around the country.

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## PRESIDENT'S LETTER *from page 1*

program to the next level and provide important educational opportunities for our members, and make important enhancements that will benefit all.

We are going to add a new certification level, hopefully for an NAB rollout. It is called Certified Broadcast Network Engineer, or CBNE. It is the next step for the existing CBNT certification level. One difference with the CBNE is that it will have a five year experience requirement. It is the next natural step for those holding the CBNT to try this new certification.

SBE University is expanding as well. With a total of eight courses currently available and more on the way, our newest course is titled "Broadcast Audio Processing" and is authored by Stephen M. Poole, CBRE, AMD, CBNT. Stephen is the market Chief Engineer for Crawford Broadcasting's Birmingham, Alabama Stations. The course takes a practical, real-world approach. An entire chapter is devoted to human hearing and how it actually responds in the real world. All of the familiar terms are here: attack and release times, compression, peak limiting ... but emphasis is given to how these sound to the listener. More information on this and other SBE

University courses is available on the new and improved SBE website at [www.sbe.org](http://www.sbe.org).

Speaking of SBE University, if you want to win a free SBE University course of your choice, send an e-mail to [vlopez@sbe.org](mailto:vlopez@sbe.org) with the subject "University Contest" and the words "Welcome to Santa Rosa County" in the body of the message.\*

The Society continues to offer a variety of webinars. Coming up will be another session of our popular RF Safety course, presented by Richard Strickland of RF Safety Solutions. Over 650 people have taken this web training since its inception, making it one of SBE's most popular webinars. This will be held on Thursday, February 17 at 2:30 p.m EST. Right on the heels of this is a two part webinar, Networking Technology for Broadcast Engineers. Part 1 will be on March 3, 2011 and Part 2 is scheduled for March 24, 2011. Both sessions are from 2:00 - 4:00 pm. The instructor for this webinar is Wayne M. Pecena, CPBE, 8-VSB, AMD, DRB, CBNT.

Wayne is the Assistant Director of Educational Broadcast Services in the Office of Information Technology at Texas A&M University. As usual with all SBE educational offerings, these qualify for recertification credits.

We have two upcoming Ennes Workshops coming up as well. The Sacramento Ennes Workshop co-sponsored and hosted by SBE Chapter 43 - Sacramento and KVIE will be held on Saturday, February 12, 2011. For those in the sunshine state, the South Florida Ennes Workshop, hosted by SBE Chapter 53 - Miami will be held on Thursday, March 10, 2011. Last but not least, don't forget about the biggest Ennes Workshop of the year, on Saturday April 9th, 2011 at NAB.

2011 does indeed look to be the year that SBE takes our educational opportunities to the next level. You will see this phrase used extensively throughout the year, from mailings to e-mail campaigns and all things SBE. I hope all of you join us in *Raising the Bar*.

### *\*the fine print*

Winner will be determined by a random draw of all correct entries received by 12:00pm February 28, 2011. Winner must be a current member of SBE. Prize is transferable by the winner to another SBE member. Prize has no cash value.

## Time to renew your SBE membership

**E**nsure your continuing membership in the only professional organization dedicated solely to the advancement of the broadcast engineer and the field of broadcast engineering by renewing your membership. Most members of the SBE will receive their annual membership renewal form in the mail during the first week of February. Those in the Member, Senior, Student, Associate and Fellow membership categories will receive the mailing. Renewals are due by April 1<sup>st</sup>.

You can renew by filling out the form and mailing or faxing it with payment information to the SBE National Office, or you can use the on-line renewal form on

the SBE website, [www.sbe.org](http://www.sbe.org). The system is fast and secure and you will receive an automated email confirmation message/payment receipt. More than 1,000 members used the on-line system last year, which was the first year on-line renewal was available.

Membership dues may be paid using a personal or company check, money order, debit or credit card (MasterCard, VISA or American Express).

Membership dues for the member classifications listed above (except Student) are \$68 for the April 1, 2011 - March 31, 2012 membership year. The SBE Board of Directors approved an increase last Octo-

ber of \$5, the first increase in four years. Student member dues remain at \$20. Life members are automatically renewed with no form to complete or dues to pay. Youth and Sustaining Members renew in the anniversary month of their membership. The membership dues for those classifications have not changed.

If you have any questions about your renewal, or if you do not receive your renewal reminder by February 15, please contact Scott Jones at the SBE National Office at (317) 846-9000 or [kjones@sbe.org](mailto:kjones@sbe.org).

# Diluting the waters

by Chris Imlay, CBT  
SBE General Counsel



It is certainly no secret that the broadcast industry was hit hard by the 2008 recession. It has not recovered significantly since then. It is still very hard times for even the best commercial broadcasters, especially radio station licensees. It is still bad enough that I was asked to present as part of a workshop at NAB this Spring a session for broadcast engineers about working for an employer in reorganization. And I am

doing it, because unfortunately, it is a timely subject.

Against this backdrop, it was surprising to me to read the FCC's Notice of Proposed Rule Making, proposing to vastly expand the uses (and the numbers) of Traveler's Information Stations (TIS) released at the end of last year. As a guy who represents a lot of AM broadcast stations, there is a lot that strikes me as just plain wrong about this proposal, and about TIS in general.

TIS is and always has been a low-power AM broadcast service. There is no doubt about that. It is a point-to-multipoint service with the specific purpose of delivering information to everyone with an AM broadcast receiver within range of the devices about certain local conditions. The transmitters operate day and night in the AM broadcast band with power levels of 10 watts into vertical antennas, or 50 watts into leaky cables. The field strength of TIS stations cannot exceed 2 mV/m at a distance of 1.50 km (0.93 miles) from the transmitting antenna system. They are limited to transmitter sites considerably outside the 0.5 mV/m contour of co-channel or first adjacent channel AM stations, but other than those restrictions, technical regulation of TIS is hazy in the one rule section that deals with them. They are a secondary service in the 535-1705 kHz band, and primary at 530 kHz.

The rule section that deals with them (Section 90.242) is in Part 90, not Part 73 or Part 74. Why? These stations are regulated not by the Audio Division at FCC, but by the Public Safety and Homeland Security Bureau. This low power broadcast service is administered by the folks who regulate two-way radio use by local governments. The licensees who operate TIS broadcast stations are Public Safety eligibles. It has been this way since 1977 when this service was first formed. As of now, TIS stations may only transmit "noncommercial voice information pertaining to traffic and road conditions, traffic hazard and travel advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest." TIS transmitter sites are restricted to "the immediate vicinity of ... [a]ir, train, and bus transportation terminals, public parks and historical sites, bridges, tunnels, and any intersection of a Federal Interstate Highway with any other Interstate, Federal, State, or local highway." But the FCC proposes, in response to three petitions filed by (of course) the associations representing the interests of TIS stations, and the American Association of State Highway and Transportation Officials (AASHTO) to vastly expand the scope of TIS stations. AASHTO had asked that TIS stations be permitted to transmit AMBER alerts and the availability of 511 (a nationwide telephone number for traveler information). Highway

Information Systems, Inc. asked that the Commission re-title TIS as the "Local Government Radio Service; expand the permissible uses of TIS stations to include broadcast information of a non-commercial nature "as determined by the government entity licensed to operate the station and other government entities with which the licensee cooperates;" and to eliminate the limitation on TIS sites to areas near roads, highways and public transportation terminals, so that they can be located anywhere. Local governments commented on the proposals, and suggested in essence that TIS stations be allowed to broadcast virtually all non-commercial information such as local government official notices etc., similar to low power FM stations.

The FCC's Notice of Proposed Rule Making takes the bait offered by AASHTO and the other two petitioners and the commenting local governments. As is the case with a lot of other FCC NPRMs lately, no actual rules are proposed by FCC, making it difficult to comment on the proposal, but the NPRM does ask a lot of questions, including whether the public interest would be served by expanding TIS to include the broadcast of all non-commercial information; whether to limit the expanded authority to just emergency alerts, or to some other permissible content; and whether to expand TIS while retaining the travel-nexus requirement.

FCC is not interested (probably because this rulemaking was initiated by the Public Safety and Homeland Security Bureau) in what the impact of this wholesale change in the concept of TIS would be on radio broadcasters. Instead, they ask whether the changes would diminish the ability of TIS stations to communicate information of local concern to travelers. Is that really the issue here? FCC asks to what extent the type of information broadcast over the TIS service might be broadened without "diluting" the value of the service to travelers.

I don't suggest here that TIS stations are now a major source of interference to the AM broadcast service. But it should be patently obvious that anecdotal tallies of interference complaints by AM broadcast listeners are not an accurate measure of the interference potential of the stations now, because of course AM listeners do not complain of interference, they simply tune away to FM, or just turn off the radio entirely. It should also be patently obvious that a radical increase in the number of ten-watt transmitters in the AM broadcast band will have a measurable aggregate effect on ambient noise, especially nighttime, throughout the AM band.

More to the point, however, the effort to make local governments into non-commercial broadcasters is misplaced conceptually. Broadcast radio stations in most markets, and especially AM stations, do local broadcasting because they have no other choice if they want to survive. There is no need to replicate the AM, FM or LPFM services with a local government broadcasting service. Broadcasters broadcast AMBER alerts, weather information, road closures, and other breaking emergency news. It is not necessary or beneficial to dilute the broadcast service, and especially the AM broadcast service, with a local government sponsored broadcast service. And it is not necessary to increase the number of full-time low power AM transmitters in the AM Broadcast



jbernier@sbe.org

# Is it time to recertify?

by **James T. Bernier Jr., CPBE, CBNT**

*SBE National Certification Committee Chairman*

**F**rom time to time, we receive feedback from both certified members and certified non-members questioning the recertification process. Some don't appreciate the requirements for recertification. Others don't understand why there's a five year term to the certification itself, after all, "once you're certified, no one can take it away from you".

Those of us old enough to remember the FCC's first class ticket will also recall that it had a five year term, upon which it was your responsibility to remember to renew it. All that was required for renewal was a clean service record.

SBE Certification, like the old FCC licenses and many other professional certifications, is a renewable certification with a five year term. You will receive a renewal notice six months prior to the end of that five year term. This notice will include the recertification application and instructions for filling it out. For all engineering certifications, you need to renew by professional credits.

You may ask, "Why do I have to fill out an application if I have been working in the broadcasting field?". The reason

is similar to why you had to take an exam to be certified in the first place. You are showing that you have continued your education and knowledge in our technical world.

The professional credit requirements encourages individuals to do more during their five year term than just hold employment, professional memberships and attend meetings. The activity distribution across ten different categories is a way to encourage you to engage in activities that expand your knowledge and education with the ever changing industry before us.

The Society's certification committee has detailed different activities within the ten categories that coincide with what they believe demonstrates your continuing education efforts within the industry. The Certification Committee is a group of volunteers that work as broadcast engineers throughout the United States. Many different individuals have served on the committee over the past 35 years. The categories and activities within those categories are reviewed regularly to make sure that the renewal process remains relevant.

The categories that they have identified for recertification by professional credits include: employment, membership, chapter meetings, conferences or seminars, factory or in-station schools, continuing education units, publication of an article or a presentation on a relevant subject, SBE educational courses, workshops and a number of other areas. Each certification level has a number of minimum credits that needs to be reached for recertification spread over a minimum of four categories.

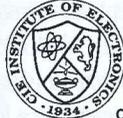
When you are initially certified, and with each renewal, you receive a "Maintenance of Certification" brochure. This brochure is provided so that you can keep track of items that should be included in your recertification application when it is due. By keeping a track record as the years tick by, it will make the application easier to fill out when the time to renew is upon you.

The founders of SBE's certification program were purposeful in requiring recertification every five years. The new program needed to provide employers a basis for assuring that this new process was better than the old FCC renewal process. In doing so, they created a program that was more meaningful to both member and non-member participants.

I want to thank the local certification chairmen, and the National Certification Committee, for dedicating their time to the program of certification. Without their volunteer efforts, this program would not exist.

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Samuel Garfield, Raleigh, NC – Chapter 93  
Michael Goode, Indianapolis, IN – Chapter 25  
Ralph Gould, Sioux Falls, SD  
Earnest Hopseker, Newport, OR – Chapter 16  
Tom Jones, III, Montgomery, AL – Chapter 118  
Robert Jordan, Hickory, PA – Chapter 20  
Jeffrey Keith, New Bern, NC  
Robert Locke, Maize, KS – Chapter 3  
Thomas Lyons, St. Louis, MO – Chapter 55  
Edwin Martin, Maryville, TN – Chapter 113  
Carl Ostrom, Nevada City, CA – Chapter 43  
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Timothy Anderson, Covington, KY – Chapter 33

### NOVEMBER EXAMS

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Brien Laufer, Torrance, CA – Chapter 47  
Robert Lindner, Reston, VA – Chapter 37

### CERTIFIED SENIOR RADIO ENGINEER™ (CSRE®)

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William Brown, Grass Lake, MI – Chapter 91  
Robert Clinton, Manassas, VA – Chapter 37  
Thomas Saylor, III, Troy, ID – Chapter 117  
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### CERTIFIED BROADCAST RADIO ENGINEER™ (CBRE®)

Jon Kasprick, Federal Way, WA – Chapter 16  
Timothy Valley, Northfield, MN – Chapter 17

### CERTIFIED BROADCAST TELEVISION ENGINEER™ (CBTE®)

Ernesto Camareno, Riverview, FL – Chapter 39

Robin Cole, Spokane, WA – Chapter 21  
Charles Ferry, Jr., Apex, NC – Chapter 93  
Patrick Mahon, Roseville, MI – Chapter 80  
Elliott Norton, Sugarland, TX – Chapter 105  
Leonard Sampson, Uniontown, PA – Chapter 20

### CERTIFIED AUDIO ENGINEER® (CEA®)

James Strike, Portland, OR – Chapter 124

### AM DIRECTIONAL SPECIALIST™ (AMD™)

Robert Hailey, Tampa, FL – Chapter 39

### CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

Scott Arthur, Albuquerque, NM – Chapter 34  
Melville Berry, Lake in the Hills, IL – Chapter 37  
Timothy Dailey, Ringwood, NJ – Chapter 15  
Paul Easter, Rosenberg, TX – Chapter 105  
Shane Fortin, San Diego, CA – Chapter 36  
Jeffrey Koscho, Clinton, MD – Chapter 37  
Robert Lindner, Reston, VA – Chapter 37  
Patrick Mahon, Roseville, MI – Chapter 80  
Andrea Taratusky, San Diego, CA – Chapter 36

### CERTIFIED BROADCAST TECHNOLOGIST® (CBT™)

Peter Bankwitz, Detroit, MI – Chapter 82  
Bob Collom, Mickelton, NJ – Chapter 18  
Matthew Hall, San Diego, CA – Chapter 36  
Mark Johnson, Fairfax, VA – Chapter 37  
Patrick Mahon, Roseville, MI – Chapter 80

### CERTIFIED RADIO OPERATOR® (CRO™)

Travis Arrington, Chancellor, AL

### CERTIFIED TELEVISION OPERATOR® (CTO®)

Victor Cenusa, Roselle Park, NJ – Chapter 15  
Clark DeCatur, Raleigh, NC – Chapter 93  
Brian Dempsey, Birmingham, AL – Chapter 68  
William Harvey, Birmingham, AL – Chapter 68  
Andre Howard, Chicago, IL – Chapter 26  
Anthony King, Birmingham, AL – Chapter 68  
Angela Riley, Eugene, OR – Chapter 76  
Zach Whaley, Pittsburgh, PA – Chapter 20  
Nate Wheeler, Springfield, OR – Chapter 76

### SPECIAL PROCTORED EXAMS

### CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

Benjamin Allen, Beebe, AR

### CERTIFIED BY LICENSE

### CERTIFIED BROADCAST TECHNOLOGIST® (CBT™)

Norman Corliss, Chapter 110  
Dewey Newton, Canton, GA – Chapter 5

### CERTIFIED RADIO OPERATOR® (CRO™)

### CERTIFIED RADIO OPERATOR® (CRO™)

### FAMILY LIFE BROADCASTING

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Thor Moldrem  
Joseph Neubaum

### FAMILY STATIONS INC.

Tony Giang  
Lisa Sovulewski

### PASADENA CITY COLLEGE

Justin Bernal  
Richard Garcia  
Samuel Cartwright  
Nicel Guerra  
Elizabeth Jahelka  
Myrone McCarty  
Dwayne McClendon  
Joana Morales  
Joaquin Ramos

### ITHACA COLLEGE

Isaac Derfel  
Rob Engelsman  
Emily Junge  
Stephen Koplick  
Stacey Lawrence  
Amy Obarski  
Alex Ogle  
Collin Schuck  
Theodore Slipko

### PARMA CITY SCHOOLS

Taylor Colaric  
Michael Dawson  
Matthew Madej  
Melissa Powell  
Nicole Septaric  
Adam Zapotechne

### CERTIFIED TELEVISION OPERATOR® (CTO®)

### CERTIFIED TELEVISION OPERATOR® (CTO®)

Linda Brantley, Palm Harbor, FL  
Ray Denton, Meridian, MS  
Mario DiBiasi, Kansas City, KS  
Mark Dixton, Knoxville, TN  
Aaron Eisenman, Aurora, CO  
Beau Foster, Greensboro, NC  
Justin Hempstead, Orlando, FL  
Robin Hendrix, Greensboro, NC  
Kara Langston, Shawnee, KS  
Tim Lemos, Orlando, FL  
Andrew Magyar, Burbank, CA  
Patrick Mahon, Roseville, MI  
Mike Melendez, Albuquerque, NM  
Laura Moser, Aurora, CO  
Eric Olsen, Marrero, LA  
Ernest Schimizzi, Wainscott, NY  
Josh Taylor, Meridian, MS  
Dustin Vasko, Chesapeake, VA  
Dan Villasanor, Burbank, CA  
Matt Vinke, Burbank, CA

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Jeff Campbell  
Julie Crouch  
Nicholas Hambarian  
Jamaal Harley  
Brett Klaus  
Wes Knippers  
Tom Loya  
Gabe Tenuta

### ION MEDIA NETWORK

Eddie Gray  
Michael Hall  
Tim Janda  
David Johnson  
Alex Norman

### WESTERN CAROLINA UNIVERSITY

Barry Brigham  
Jacqueline Marshall  
Nathan Rowe  
Courtney Ebejay  
Thomas Alexander

### 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 PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Andres Diaz, Guaynabo, PR – Chapter 142

Alan Kilgore, Oconto Falls, WI – Chapter 80  
Scott Mason, Los Angeles, CA – Chapter 47  
Lang Sturgeon, Thurmont, MD – Chapter 46

### CERTIFIED SENIOR RADIO ENGINEER™ (CSRE®)

Roswell Clark, Clearwater, FL – Chapter 39  
Lewis Ray, South Bend, IN – Chapter 30  
Michael Smith, Concord, NC – Chapter 45

### CERTIFIED BROADCAST RADIO ENGINEER™ (CBRE®) AM DIRECTIONAL SPECIALIST™ (AMD™)

Gregory Armstrong, Columbus, OH – Chapter 52

### CERTIFIED BROADCAST RADIO ENGINEER™ (CBRE®)

David Antoine, Bronx, NY – Chapter 15  
Jack Roland, Wheat Ridge, CO – Chapter 48  
Joseph Torsitano, Grants Pass, OR – Chapter 141

### CERTIFIED BROADCAST TELEVISION ENGINEER™ (CBTE®)

Timothy Davis, Fort Worth, TX – Chapter 67

### CERTIFIED VIDEO ENGINEER® (CEV®)

Larry Tanaka, Chicago, IL – Chapter 26

### CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

David Antoine, Bronx, NY – Chapter 15  
Roswell Clark, Clearwater, FL – Chapter 39  
William Gaddis, Tuscaloosa, AL – Chapter 68  
Charles Griffin, Plantation, FL – Chapter 53  
Frank McLemore, Smiths Station, AL – Chapter 118  
John Mulhern, Libertal, KS  
Paul Orth, Menomonee, WI – Chapter 112  
David Palmeira, Winter Springs, FL – Chapter 42  
Michael Smith, Concord, NC – Chapter 45  
Patrick Tobin, Big Rapids, MI – Chapter 102

### CERTIFIED BROADCAST TECHNOLOGIST® (CBT™)

Christopher Hays, La Canada, CA – Chapter 47  
William Hootor, Salisbury, MD – Chapter 22  
James Martin, Richardson, TX – Chapter 67  
Michael Maville, Boca Raton, FL – Chapter 88  
Douglas Melanson, Yuma, AZ – Chapter 138  
David Palmeira, Winter Springs, FL – Chapter 42

### CERTIFIED TELEVISION OPERATOR® (CTO®)

Lawrence Andersen, Wauwotosa, WI – Chapter 28  
Tom Dailey, Denver, CO  
David Edmonds, Denver, CO  
Sarita Gurung, Denver, CO  
Jennifer Larson, Bozeman, MT  
Steven Michael, Wyandotte, MI  
Shawn Morgan, Riverside, CA  
Ron Santos, Medford, OR  
Keith Silvester, Talent, OR  
Megan Shaw, Bozeman, MT  
Alyca Taylor, Encino, CA  
William Thompson, Raleigh, NC  
Ringo Wong, Artesia, CA

### CERTIFIED RADIO OPERATOR® (CRO™)

Frank Baptista, Westport, MA – Chapter 11

# SBE Education Update

## New SBE University Course • Available Online, On-demand **Broadcast Audio Processing**

SBE University has a new course on Broadcast Audio Processing geared toward the intermediate to experienced broadcast engineer who is already familiar with the basics of good broadcast engineering. The course concentrates on loudness and the human ear, the basics of broadcast audio processing, the basics of gain control, limiting and clipping, adjusting a wideband processor for voice and multi-band processing. The SBE is grateful to Stephen Poole, CBRE, AMD, CBNT, for all his work in developing this course. The cost is \$80 for SBE Members and \$105 for non-members.

The screenshot shows a web browser window with the URL: [Home > Broadcast Audio Processing > Broadcast Audio Processing > Adjusting a Wideband Processor for Voice](#). The page title is "Adjusting a Wideband Processor for Voice". The content includes a navigation menu with buttons for PREV, NEXT, HOME, GRADES, PRINT, FONT (+), and FONT (-). The main text explains that at this point, it is assumed the processor is properly mounted and connected, and that the audio is as good as it can be at the input. It then discusses how to adjust the processor for voice. A diagram labeled "Figure 20" shows a "Dual Mono Processor" with two input channels labeled "Host" and "Guest". The "Host" channel has a "Mike" icon and a "Dual Mono Processor" icon. The "Guest" channel has a "Mike" icon and a "Dual Mono Processor" icon. The diagram shows the signal flow from the mikes through the processors.

### A View of the Broadcast Audio Processing Course – Chapter 6

SBE University consists of online courses of interest to broadcast engineers. These courses can be accessed again and again at a time that is convenient for you. Other courses on SBE University include 8-VSB, Computer Networking, Voice Telco Networks, Studio Interface Systems and more.

## 2011 SBE Leadership Development Course August 2-4 • Atlanta, Georgia

This three-day course, led by leadership consultant and college professor Rodney Vandever, challenges you to refine your leadership skills as you better understand and improve how you interact with others. One attendee of the 2010 Course said of his experience, "The insight into my own management style and the motivational techniques was excellent." Another student said this is "a class every manager should attend!"

## Upcoming Webinars

### SBE RF Safety Course • February 17

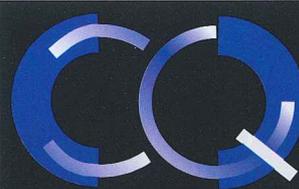
Need to brush up on your knowledge of RF and RF Safety? The SBE RF Safety Course provides an overview of RF radiation issues and practices for broadcasters, including workplace hazards, transmitter sites, SNG and ENG trucks, the biological effects of RF radiation and the distinct differences between RF radiation and ionizing radiation and more. *Instructor - Richard Strickland*

### Networking Technology for Broadcast Engineers March 3 and March 24

This subject is broken into two webinars. Each webinar can be taken independently but note that SBE Members save \$20 when they purchase both. The first webinar covers TCP/IP and UDP fundamentals and IP addressing (IPv4 focused). The second webinar focuses on the fundamentals of IPv6, switching and routing fundamentals, QoS basics, controlling traffic and security concerns. *Instructor - Wayne Pecena*

### KREX – the Real World of Disaster Recovery April 28 • FREE for SBE Members! registration required

For most engineers, the disaster recovery plan is a file on their hard drive that is a sketchy and rarely updated plan on what should be done if the station is destroyed. Find out what real world lessons in disaster planning were learned when the CBS and Fox affiliate in Grand Junction, Colorado burned completely to the ground and the Super Bowl was just two weeks away. This session includes helpful checklists and templates related to disaster planning and recovery. Thank you to Harris Corporation for sponsoring this webinar. **HARRIS**



What's your  
Certification  
Quotient?

answer on page 13

Question: Which signal is located 310 kHz above the lower edge of the 8-VSB Channel:

- A. Pilot Signal
- B. Data Segment Signal
- C. Q Signal
- D. I Signal

## 2011 SBE Certification Exam Schedule

Dates	Location	Application Deadline
February 4-14, 2011	Local Chapters	CLOSED
April 12, 2011	NAB Convention	March 25, 2011
June 3-13, 2011	Local Chapters	April 15, 2011
August 5-15, 2011	Local Chapters	June 3, 2011

# MARK YOUR CALENDAR

For more information or to register for the programs brought to you by the SBE, visit our website at [www.sbe.org](http://www.sbe.org) under Education.

## February 12 • Sacramento Ennes Workshop • 9:00 a.m.-5:00 p.m. PST

**Hosted by:** SBE Chapter 43 and KVIE-TV  
**Cost:** SBE Members • \$25; Non-Members • \$35

## February 17 • SBE RF Safety Course • 2:30-5:45 p.m. EST

**Instructor:** Richard Strickland, RF Safety Solutions  
**Cost:** SBE Members • \$85; Non-Members • \$125

## March 3 • Networking Technology Webinar • 2:00-4:00 p.m. EST

TCP/IP and UDP Fundamentals and IP Addressing (IPv4 focused)

**Instructor:** Wayne M. Pecena, CPBE, 8-VSB, AMD, DRB, CBNT  
**Cost:** SBE Members • \$59\*; Non-Members • \$79

\*SBE Members get a \$20 discount when you purchase both Networking Technology webinars

## March 10 • South Florida Ennes Workshop • 9:00 a.m.-5:00 p.m. EST

**Hosted by:** SBE Chapter 53  
**Cost:** SBE Members • \$30; Non-Members • \$45

## March 24 • Networking Technology Webinar • 2:00-4:00 p.m. EDT

IPv6 Fundamentals, Switching and Routing, QoS Basics, Controlling Traffic and Security Concerns

**Instructor:** Wayne M. Pecena, CPBE, 8-VSB, AMD, DRB, CBNT  
**Cost:** SBE Members • \$59\*; Non-Members • \$79

\*SBE Members get a \$20 discount when you purchase both Networking Technology Webinars

## April 9-14 • NAB Show • Las Vegas, NV

[www.nabshow.com](http://www.nabshow.com)

## April 28 • KREX - the Real World of Disaster Recovery Webinar • 2:00-3:00 p.m. EDT

**Instructor:** Skip Erickson, Harris Professional Services

**Cost:** SBE Members • FREE; Non-Members • \$39

Thank you to Harris Corporation for making it possible to offer SBE Members this webinar at no cost.



# Fellow Nominations Deadline March 26

**T**he Fellow designation is the highest level of SBE membership and recognition presented by the Society of Broadcast Engineers. Nominations for 2011 must be received no later than March 25 for consideration this year.

Information on how to submit a nomination is available at the SBE website. Click on the "About Us/Awards & Recognition" tab on the red menu bar and click on "SBE Fellow." Submit your nominations to Fellowship Committee Chair: Troy Pennington, CSRE CBNT, 6156 Hampton Hall Way, Hermitage, TN 37076 or to [troy.pennington@cumulus.com](mailto:troy.pennington@cumulus.com).

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## 2011 NAB SHOW *from page 1*

is just up the escalator from the South Hall main entrance and just outside the entry to the exhibits on the second floor. This is the same location as in recent years. See the SBE website, [www.sbe.org](http://www.sbe.org), for a floor plan indicating the booth location. The BEC technical sessions will be located nearby, in the South Hall second floor meeting rooms.

Be sure to plan to visit the SBE booth while at the convention. We will have all of the SBE published handbooks, technical books from major publishers and the SBE CertPreview. There will also be several of our popular SBE logo items for sale. Membership renewals and new memberships may also be transacted at the booth. SBE staff and national Board members will be at the booth to answer your questions about membership, certification, educational programs and regulatory issues.

### Booth Hours

**Sunday** ..... 2:00 pm – 4:00 pm  
**Monday – Wednesday** ..... 9:00 am – 6:00 pm  
**Thursday** ..... 9:00 am – 2:00 pm

### SBE Spring Membership Meeting

Highlighting the week for SBE will be the annual spring Membership Meeting, held on Tuesday, April 12 from 5:00 pm to 6:00 pm in the South Hall at the Las Vegas Convention Center (room to be announced). We will be recognizing a number of our local chapter certification chairs during the meeting. Prizes will be given away to those who attend.

### Saturday, April 9

**Ennes Workshop** ..... 8:00 am – 5:00 pm  
(Conference registration required) LVCC South Hall 2nd Floor

**SBE Certification Committee Meeting** .. 6:30 – 11:00 pm  
Conference room 7

### Sunday, April 10

**SBE Board of Directors Meeting** ..... 8:30 am – 12:00 pm  
Conference Rooms 7 & 8

**SBE Education Committee Meeting** ..... 2:00 pm – 4:00 pm  
Conference Room 7

### Frequency Coordination

**Committee Meeting** ..... 4:00 pm – 5:30 pm  
Conference Room 8

### Monday, April 11

**SBE Certification Exams** ..... 9:00 am – 12:00 pm  
Conference Rooms 9 & 10

### Tuesday, April 12

**SBE Frequency Coordinators Meeting**.. 10:00 am – 12:00 pm  
Conference Rooms 7 & 8

**SBE Spring Membership Meeting** ..... 5:00 pm – 6:00 pm  
LVCC Room TBA

### Registration Discounts for SBE Members

Members of SBE whose employers are not members of the NAB, can register for the full conference (Conference Flex Pass) using the special “Partner Rate”, which provides a \$100 discount off the non-NAB member rate. SBE members should use the Pass Code: BE25, on the on-line NAB Show registration form to get the discount. To register, visit the NAB website, [www.nabshow.com/2011](http://www.nabshow.com/2011). Register before April 8 to avoid paying higher registration rates.

The Conference Flex Pass is \$495 for NAB members, \$595 for SBE members using the Partner Rate and \$695 for non-NAB members. The Flex Pass includes admission to the Broadcast Engineering Conference (which includes the Ennes Workshop on Saturday, April 9), Broadcast Management Conference, Content Conference, DCS 2011, Media Business Conference, Military & Government Summit, Telecom Access Networks Conference and Telepresence Conference. It also includes access to Super Sessions, Opening Keynote and State of the Industry Address, Info Sessions, one Luncheon (Radio, Television or Technology), Content Theater, Exhibits and PITS.

We hope you'll join many of your fellow SBE members April 9-14 in Las Vegas for the 2011 NAB Show and NAB Broadcast Engineering Conference.

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## WATERS *from page 5*

band. I cannot for the life of me understand why the Public Safety and Homeland Security Bureau is in charge of this rulemaking, or for the matter of that, in charge of TIS stations. It seems to me that the Audio Division of the Media Bureau at FCC ought to be regulating this broadcast service. I recall a case not long ago in which an AM broadcaster that I represent was prepared to commence operations of a new station the licensee had built. Well within the 0.5 mV/m contour of the new station was a TIS station operated by a state transportation authority, which had been on the air for some time. Convincing the local government that it was necessary to take this station off the air on that frequency was not easy and it took an FCC complaint and several months to accomplish. Can you imagine the same effort if the FCC allows TIS stations to transmit emergency information and other local government information?



# Recognize the best in the industry with the SBE National Awards

**S**ome SBE Members go above and beyond the call of duty to do their jobs and serve SBE and the broadcast industry. Some local SBE chapters do an absolutely excellent job of serving their members. But oftentimes these efforts go unrecognized. Don't let that happen this year. Nominate a deserving individual or SBE chapter for the National SBE Awards.

There are five chapter and six individual award categories:

**Broadcast Engineer of the Year** recognizes the SBE member who has made a great contribution to the broadcasting industry and to furthering the goals and objectives of the Society.

**Educator of the Year** recognizes the SBE member who is dedicated to the education of the broadcast engineer through personal writings, teachings, programs and employment and who furthers the goals and objectives of the Society.

**Technology Award** recognizes the SBE individual or Sustaining Member who has provided the industry with the best new or innovative technical item or idea to further the science of broadcast engineering and to assist the broadcast engineer to be more productive in the craft. Only ideas that have been shared with others in the industry are eligible

**Best Technical Article, Book or Program by an SBE Member** recognizes the author of the best technical article, book, paper or program in its contribution towards the increase of scientific, operational, artistic or technical knowledge in the broadcast engineering industry.

**Best Article, Paper or Program by an SBE Student Member** recognizes the SBE Student member who has shown excellence in the presentation of a technical operational or scientific paper published in an SBE local, national, or industry-related publication; or program presented at a local chapter meeting, national/regional convention or broadcast engineering-related class.

**Best Regional Convention or Conference** recognizes the effort of the local chapter that sponsored, organized and held a regional technical conference and/or convention that best furthered the goals and objectives of the Society.

**Best Chapter Newsletter\*** recognizes two local chapters that produced the best locally published newsletter in its class, providing up-to-date and relevant information about the chapter in

a graphically pleasing and editorially sound manner. Both print and electronic newsletters are eligible.

**Most Interactive Chapter** recognizes the local chapter that most actively attempted inter-association with organizations in industries related to the Broadcast Engineering profession.

**Best Chapter Frequency Coordination Effort\*** recognizes two local chapters that expended the greatest and most effective effort toward frequency coordination in its market and service area.

**Best Chapter Website** recognizes the local chapter with a website providing up-to-date information about the chapter, including officers and meetings, making effective and creative use of graphics; providing links to the SBE National website and effectively representing the chapter and SBE.

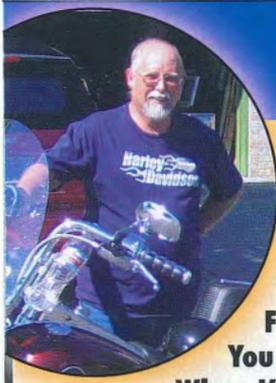
**Most Certified Chapter\***, **Highest Member Attendance\*** and **Greatest Growth in New Members\*** are three awards determined with statistical information based on December 31, 2010 figures on file at the SBE National Office. Chapters established in 2011 are not eligible for the Greatest Growth in New Members award.

*\*Denotes categories with two class awards determined by size of chapter so that chapters with vastly different membership sizes are not competing with each other.*

To nominate a deserving individual or chapter, go to the SBE website and download and submit the nomination form to the SBE National Office. Mail to: Society of Broadcast Engineers, Attn. Awards Committee, 9102 North Meridian St., Suite 150, Indianapolis, IN 46260; fax to (317) 846-9120 or email to Megan Clappe at [mclappe@sbe.org](mailto:mclappe@sbe.org).

Award winners will be notified in July and invited to attend the 2011 SBE National Meeting, which will be held in conjunction with the Ohio Association of Broadcasters Engineering Conference, September 27-28 in Columbus, Ohio. The winners will be recognized at the SBE National Awards Dinner as part of the National Meeting.

The deadline for all nominations is May 31, 2011 recognizing achievements that occurred from June 1, 2010 through May 31, 2011. For additional information, please contact Megan Clappe at [mclappe@sbe.org](mailto:mclappe@sbe.org) or (317) 846-9000 or contact the Awards Committee Chairman, Tim Anderson at [tim.anderson@harris.com](mailto:tim.anderson@harris.com) or (859) 445-7135.



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

**Patrick C. Shearer** Chief Engineer, KRCW-TV / Tribune Broadcasting, Beaverton, OR

Joined SBE in 2001, Chapter 124 - North Oregon

**Getting Started:** From the ages of four to 11 years old, I spent time hanging out with my uncle who was a Ham. I was always fascinated by broadcasting and began my career in this field when I got out of the military in 1980.

**Job Satisfaction:** What I like most about my job are the endless varieties of problems to solve.

**Focal Point:** With SBE, I value the opportunity to keep current on industry trends and to network with local engineers.

**You may not know ...** I lived in Alaska through three brutal winters, and that is where my daughter was born.

**When I'm not working ...** I'm riding either of my two Harleys with my wife. Photography is also one of my favorite hobbies.

## Chapter Spotlight 39 - Tampa [www.sbe39.com](http://www.sbe39.com)



Members of Chapter 39 at the engineering conference "Theory vs. Fact" held November 11, 2010

### Planning programs - don't be afraid to try

In Tampa Bay, we are committed to bringing opportunities for education to our members. In November we held an engineering conference "Theory vs. Fact." It was an attempt to look at where we have gone in digital broadcasting, looking back at what we thought digital broadcasting would be, from the manufacturers' perspective - where we are and what do they see on the horizon for digital broadcasting. We also addressed issues of regulation and how they have impacted digital broadcasting and the "business" of operating broadcast facilities. We try to have the very latest of topics that are currently on the minds of our members, or the latest issues that our members need to be aware of.

Having a membership that is interested and active encourages local broadcasting and industry companies to participate. Besides the presentations, vendors supported the effort financially, and provided prizes for attendees. An effort like this brings the engineers of various stations together, and helps to increase the bonds between individuals.

The best part of the session, to me, was that everyone walked away knowing they gained something valuable that day. Because we have active members in both TV and radio, we strive to have topics that address both groups.

If I were to give advice to other chapters it would be, "Don't be afraid to try". It will take some work and planning, but the reward to the membership is worth it.

- Chapter Chairman Mike Galik, CBTE, CBNT

## SBE Members on the Move

**Otto Schellin** was named Director of Engineering at WPXI-TV in Pittsburgh, PA. Schellin was formerly the Information Systems Manager.

### Accredited SBE Frequency Coordinators

The Society of Broadcast Engineers began the Accreditation program to provide volunteer SBE coordinators the opportunity to be recognized as part of a standards-based, nationally recognized program of local voluntary broadcast-auxiliary frequency coordinators. The program also makes it possible for SBE to demonstrate to the broadcasting industry the widespread acceptance of a voluntary set of standards guiding local coordination.

Arthur Hoover	Baton Rouge, LA
Mike Moravec	Little Rock, AR



**Answer:**

**(A) The pilot signal is located 310 KHz above the lower edge of an 8-VSB channel.**

question on page 8

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

- ADC Telecommunications Inc. • 1998**  
Anne-Marie Gunderson (952) 917-3072  
End to End Connectivity Solutions
- Advanced Broadcast Solutions • 2008**  
Mark Siegel (206) 870-0244  
Systems Integrator
- American Tower Corporation • 2000**  
Peter A. Starke (781) 461-6780  
Broadcast Tower Development/  
Construction/Management
- Anton/Bauer Inc. • 2004**  
Sol Comerchero (203) 929-1100  
Battery Solutions for ENG
- Audemat-Worldcast Systems Inc. • 2000**  
Christophe Poulain (305) 249-3110  
Audio Signal Processing
- Audionamix • 2009**  
Olivier Attia (800) 787-4134  
RDS Generator, Metering, Monitoring, Remote  
Control Manufacturer
- AVCOM of Virginia, Inc. • 2010**  
Warren "Buck" McElfresh  
(804) 794-2500 - Spectrum Analyzers
- AXCERA • 1983**  
Mike Rosso (800) 215-2614 ext. 101  
Television Transmitters & Exciters
- Belden Electronic Division • 1991**  
Kip Coates (765) 983-5200  
Cable and Connectivity
- Beveridge Consulting, Inc. • 2006**  
Gregory J. Beveridge (720) 810-3464  
Broadcast Engineering Technical Consulting
- 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**  
Tim Noonan (319) 277-4767 - EAST  
Jim Kubit (805) 581-4566 - WEST  
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  
One Stop Broadcast Store
- Canon USA, Inc. • 1985**  
Larry Thorpe (201) 807-3300, (800) 321-4388  
Broadcast Lenses & Transmission Equipment
- Communications Laboratories • 2008**  
Jared Maynard (321) 409-9898  
Emergency Management Network
- Comrex Corporation • 1997**  
Chris Crump (978) 784-1776  
Remote Audio Broadcast Equipment
- Comsearch • 2004**  
Tim Hardy (703) 726-5651  
Frequency Coordination Services
- Continental Electronics Corporation • 1976**  
Michael Troje (800) 733-5011  
AM & FM IBOC Transmitters
- Dataworld • 1998**  
Ed Czarniecki (800) 368-5754  
Coverage Maps and Services
- Dejero Labs • 2009**  
Bogdan Frusina, CTO (519) 886-8070  
Complete Cellular ENG Platform
- Dialight Corporation • 2006**  
US Headquarters (732) 919-3119  
Obstruction Lighting, L.E.D. Based
- Dielectric Communications • 1995**  
John George (207) 655-4555  
or Matt Leland (803) 951-7443  
TV & FM Broadcast Products
- Digital Alert Systems, LLC • 2005**  
Bill Robertson (585) 765-1155  
Emergency Alert Systems
- DigiTenna, LLC • 2009**  
Brad Eckwielen (920) 564-6248  
Television Reception Antenna Manufacturing
- DSC Laboratories • 2002**  
Michael Wiegand (905) 673-3211  
Test Charts & Illuminators
- DSI RF Systems, Inc. • 2010**  
Judy Mueller (732) 563-1144  
RF Service/Installations/Products
- DTS • 2009**  
Mark Seigle (425) 814-3200  
Surround Sound Technologies
- du Treil, Lundin & Rackley, Inc. • 1985**  
Jeff Reynolds (941) 329-6000  
Consulting Engineers
- e2v • 1997**  
Mark Strohecker (914) 593-6831  
Klystrons, MSDC IOTs, IOTs, Satcom Amps, TWTs
- Econco • 1980**  
Debbie Storz (800) 532-6626 or (530) 662-7553  
New & Rebuilt Transmitting Tubes
- Electronika America Inc. • 2010**  
Maria Quintero (305) 592-4506  
Television Transmitter & Exciters
- ENCO Systems Inc. • 2003**  
Don Backus (800) 362-6797  
Digital Audio Automation & Delivery
- ERI - Electronics Research • 1990**  
David White (812) 925-6000  
FM & TV Antennas, Transmission Line, Filters,  
Combiners and Towers
- Floral Systems • 2008**  
Jim Berry (352) 372-8326  
Television Broadcast Automation
- Frontline Communications Corp. • 2000**  
Stephen Williamson (727) 573-0400, ext. 160  
Broadcast/Command/HLS 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  
Bob Duncan (Software) (719) 439-0130  
Broadcast Equipment & Services
- HD World • 2006**  
Michael Driscoll (203) 371-6322  
HD World Conference & Exposition
- Image Video • 1997**  
Zach Wilkie (416) 750-8872 ext. 228  
Under Monitor Tally Display Systems, Monitor  
Walls, Signal Alarm Systems
- Jay S. Gerber, CBT • 1999**  
(205) 491-6904 Manager,  
NFL Frequency Organization Group
- Joseph Electronics Inc. • 2003**  
Yohay Hahamy (847) 501-1584  
Broadcasters One-Stop Supplier
- Kathrein Inc., Scala Division • 1985**  
Michael W. Bach (541) 779-6500  
Antennas for Broadcasting & Communications
- 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 Bilek (570) 326-3561, ext. 229  
Tubes, Power
- LBA Technology, Inc. • 2002**  
Jerry Brown (252) 757-0279  
AM/MW Antenna Equipment & Systems
- Lincoln Financial Media • 2007**  
Barry Thomas (404) 261-2970  
Media, Communications
- LYNX Technik • 2007**  
Steve Russel (661) 251-8600  
Broadcast Terminal Equip
- 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
- MAYAH Communications • 2010**  
Daniel Loeffler (360) 618-1474  
Audio CODECS: Mobile/ 1/21 RUrack
- Micronet Communications, Inc. • 2005**  
Jerry Armes (972) 422-7200  
Coordination Services / Frequency Planning
- Microwave Radio Communications • 1991**  
Nadine Frechette (978) 671-5700  
Video Microwave Systems
- Middle Atlantic Products • 2005**  
David Amoscatto (973) 839-1011 x1192  
Enclosures, Power, Accessories, Furniture
- MoreCom, Inc. • 2009**  
Kyle Moorehead (763) 533-5535  
Networking & AV Construction
- Moseley Associates, Inc. • 1977**  
Dave Chancey (805) 968-9621  
RF & T1 STLs
- National Association of Broadcasters • 1981**  
(202) 429-5340  
Industry Trade Association
- National Football League • 1999**  
Jay Gerber  
Game Day Coordination Operations
- Nautel, Inc. • 2002**  
Gary Manteuffel (877) 662-8835  
Radio Broadcast Transmitter Manufacturer
- NSEO • 2010**  
Robert Sorbet (281) 500-8940  
Power Quality
- NuComm/RF Central • 2009**  
Don Hoeler (908) 852-3700 ext. 3110  
Digital and Analog Video Microwave Systems
- OTL • 2010**  
Martin Rochon (574) 318-5810  
Tower Lights (Lighting)
- Panasonic Solutions Company • 1985**  
Joe Fracchini (201) 392-6183  
Professional Broadcast Equipment
- Pasternack Enterprises • 2001**  
Christine Hammond (949) 261-1920  
Coax & Fiber Products
- Polyphaser/Transector Systems • 2005**  
Carol Rassier (208) 762-6121  
Power Quality Products & Services
- Preferred Tank & Tower, Inc • 2010**  
Vie Majors (270) 826-7950 ext 227  
Communication Tower Maintenance/repair
- Prime Image, Inc. • 1997**  
Rodney Hampton (408) 867-6519  
Digital Audio/Video Equipment
- ProAudio.com - A Crouse-Kimzey Co. • 2008**  
Mark Bradford (800) 433-1205 ext. 560  
Broadcast Equipment Sales
- Propagation Systems Inc. - PSI • 2010**  
Doug Ross (814) 472-5540  
Quality Broadcast Antenna Systems
- Pulsecom • 2003**  
Dave Corp (703) 471-2908  
AM, FM and HD STLs, Copper & Optical
- Quintech Electronics and Communications  
Inc. • 2002**  
Paul Campagna (724) 349-1412  
RF Signal Management
- Radian Communication Services Inc. • 1986**  
John McKay (866) 4-RADIAN  
Towers, Antennas, TV Transmitter Installation
- RCS • 2003**  
John Gager (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  
Transmitters, Antennas and More
- 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 Integration
- Ross Video Ltd. • 2000**  
Kyle Luther (613) 652-4886  
Manufacturer, Television Broadcast Equipment
- Sage Alerting Systems, Inc. • 2010**  
Gerald LeBow (914) 872-4069  
Emergency Alert Systems Products
- Salzbrenner Alert Media Group • 2009**  
Vinnie Marci (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
- Secore, Inc. • 2005**  
Garrett Carter (800) 736-2673  
MPEG Operation and Test Equipment
- Shively Labs • 1996**  
David Allen 888-SHIVELY  
FM Antennas & Combiners
- Sigmat • 2008**  
Ed Portko (610) 783-6666  
Broadcast Equipment Support Sales
- Snell Inc. • 1995**  
John Shike (818) 556-2616  
Video Equipment Manufacturer
- Staco Energy Products Co. • 2010**  
Paul Heiligenberg (937) 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) 507-2052  
Power Protection Equipment
- Sutro Tower, Inc. • 1989**  
Eric Dausman (415) 681-8850  
Broadcast Tower Leasing
- TC Electronic • 2008**  
Ed Simeone (818) 665-4902  
DTV Audio Level Processing
- Technostrobe • 2009**  
Francis Lacombe (877) 578-7623  
FAA lights - High Intensity
- Tektronix, Inc. • 1977**  
James Lang (503) 627-3203  
TV Test, Measurement Equipment
- 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 Whitlock Group • 2000**  
Kevin Thompson (800) 726-9843  
Broadcast and Presentation Solutions
- Tieline Technology • 2003**  
Mary Ann Seidler (317) 845-8000  
POTS, ISDN, Codex & A/V Products
- TV Magic • 2008**  
Benito Behar (858) 650-3155  
Broadcast Systems Integrator
- Unimar, Inc. • 2001**  
Thad Fink (813) 643-6791 or (813) 943-4322  
Tower Obstruction Lighting Designer,  
Manufacturer, Distributor
- VALCOM • 1996**  
Bill Burtenshaw (519) 824-3220  
AM/FM Broadcasting Antennas
- Ward-Beck Systems Ltd. • 2004**  
Michael Jordan (416) 335-5999  
Metering, Monitoring, Distribution,  
Conversion
- Warning Systems, Inc. • 2008**  
Elysa Jones (256) 880-8702  
CAP, Warning, Emergency Alert
- Wheatstone • 2010**  
Jay Tyler (252) 638-7000  
IP Consoles, Routers & Processors
- Wireless Infrastructure Services • 2006**  
Travis Donahue (951) 371-4900  
Broadcast System Integration Services

# SBE would like to welcome its newest members:

## New Members

Michael J. Hatfield - Plant City, FL  
Jeff Scaringe - Odenton, MD  
Jonathan B. Bernstein - Bethesda, MD  
Michael F. Bert - Swansea, MA  
Robert H. Clime - Fairfax, VA  
Vadim Finkov - Rockville, MD  
Wayne D. Gignac - Norwich, CT  
David W. Harrison - Upper Marlboro, MD  
Martin J. Jury - Little Chute, WI  
Kevin Lapham - North Port, FL  
Ascencion R. Marquez - Bethesda, MD  
Gary H. Olson - New York, NY  
John Salmond - Washington, DC  
Timothy A. Schall - Bellevue, WA  
Jeff Sweeney - Bryans Road, MD  
Arnold R. Welch - Arcadia, CA  
John H. Rogers - East Taunton, MA  
William J. Wolfenbarger - Aberdeen, WA  
David R. Gunderson - Minden, NE  
Sarah Hill - Folsom, CA  
Sean M. Hillman - FPO, AE  
Ronald E. Krauss - Youngstown, OH  
Joseph A. Metzger - Mountain View, CA  
Thomas E. Neuse - Cantonville, MD  
David M. Sternfeld - San Diego, CA  
James Blackford - Evansville, IN  
Alan Chevrier - Norcross, GA  
Jay Darden - Palm Beach Gardens, FL  
Tim M. Jackson - La Vergne, TN  
Shane A. Knepp - Tucson, AZ  
Jack Kolebacz - Chicago, IL

John W. Wulff - Alexandria, VA  
Joseph D. Hoffman - New York, NY  
Brian Janes - Bristol, CT  
Mark Jennings - Bradenton, FL  
Richard A. Williams - Pitman, NJ  
Alan Zaccario - Tenaflly, NJ  
Toni Y. Baker - Charlotte, NC  
Christopher G. Crump - Buford, GA  
Neil Lee - Brooklyn, NY  
Brandon M. McKenzie - Bloomington, MN  
Derek L. Strelow - Toledo, OH  
Mike A. Testa - Watertown, MA  
Douglas L. Brekke - Big Timber, MT  
Benjamin E. Cazares - Deer Park, TX  
Mark Schaefer, Sr. - Tampa, FL  
Paul Taldone - Milwaukee, WI  
Terry York - Corona Del Mar, CA

## Reinstated Members

Scott D. Washburn - Springfield, IL  
David A. Lemley - Kennesaw, GA  
Alex D. Roman - Verona, NJ  
Kyle B. Arrant - Amarillo, TX  
Jim Boland - Gresham, OR  
Dean J. Tracy - Costa Mesa, CA  
Jeffery E. Glass - Sycamore, IL  
Brady C. Aldrich - Vashon, WA  
Naveed Ul Haq - Islamabad, Pakistan

## New Student Members

Michael J. Benonis - Blacksburg, VA  
Nicholas M. Righi - Ithaca, NY  
Kaitlin W. Blaylock - Cherokee, NC

## New Associate Members

William M. Harrier - Sarasota, FL

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