THE signal

SBE

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Examinees hope to add CBNE to credentials

The first Certified Broadcast Networking Engineer exams are currently being administered during the June exam session. SBE CertPreview and two additional exam periods are available for those who wish to become CBNE certified in 2012.

The CBNE exam is designed for experienced broadcast professionals with significant experience in IP networks and associated storage and playout technologies employed in radio and television operations. The exam requires a minimum of five years broadcast engineering experience in order to take the exam with no additional certifications required.

The SBE National Certification Committee, with the blessing of the board of directors, undertook the job of creating test questions for the exam in 2010. The concept consisted of two rounds of beta tests and the creation of CertPreview questions for the sample test software. When the committee began the CBNE process they saw there was a need to measure a broadcast engineer's networking skill set beyond that of the entry-level Certified Broadcast Networking Technologist. The CBNE delves much deeper than the CBNT into networking and IT issues. The exam covers areas such as Audio/Video over IP for broadcast, digital content management, video systems in an IT world, data transmission systems and practices, general PC hardware, interconnection and backup. An extensive list of areas of emphasis for the CBNE is available on the SBE website.

The CBNE CertPreview sample test software is a study tool for those taking the CBNE exam. The CertPreview contains over 50 questions similar to the actual exam. The program is available for purchase and download from the SBE website. After completion of CertPreview, the examinee is given correct answers to missed questions and the reference book the question was created from. The examinee can use these reference books during the certification exam. Three hours is allotted for the actual CBNE exam, which consists of 50 multiple choice questions and an essay. The multiple-choice portion is open book and the essay is closed book.

Be recognized as an expert in the current and most advanced broadcast engineering technology and become CBNE certified in 2012. Apply to take the exam in August or November, the two remaining exam periods open for the year. For more information visit http://www.sbe.org/sections/cert_broadcast.php.

Board nomination slate forms; additional candidates from membership welcome

A list of candidates for the summer election of the Society of Broadcast Engineers Board of Directors is assembled. The election begins July 26 and runs through August 28.

Additional qualifying members may enter the election by being nominated by a voting member and endorsed by at least nine additional voting members. Candidates must be voting members, current in their SBE dues and hold certification by the SBE at an engineering level, which includes CBT or a higher certification. If elected, these same requirements apply during the term of office. Voting members include Regular, Senior, Fellow and Life members and the voting representatives of SBE Sustaining Members.

President
Ralph Hogan, CPBE, DRB, CBNT
Director of Engineering
KJZZ-FM/KBAQ-FM
Tempe, Ariz.
Chapter 117

The SBE National Office must receive candidate nominations from the

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Mile High City hosts SBE National Meeting

The 2012 National Meeting of the Society of Broadcast Engineers takes place October 23-24 at the Crowne Plaza Denver International Airport in Denver, Colo. The event is being held in conjunction with the Rocky Mountain Audio/Visual Expo and the SBE/SMPTE Engineer's Boot Camp. The local host is SBE Chapter 48 of Denver.

For more than 20 years, the Rocky Mountain Audio/Visual Expo has been a major regional event for video, audio, integration, AV and broadcast professionals. Attendees come primarily from the Rocky Mountain region and Great Plains states. The exhibit floor will be open both days. The expo also includes a number of keynote speakers, workshops and a free reception. The Crowne Plaza property includes a large meeting and convention center that enables the expo to feature in excess of 120 companies in more than 100 booths.

SBE Chapter 48, along with the Rocky Mountain Section of SMPTE, will present a half-day version of their popular Broadcast Engineer Boot Camp on Wednesday, October 24. The Boot Camp will include presentations on broadcast technology of interest to television and radio engineers and technicians.

Among the SBE National Meeting events is the SBE Membership Meeting, which is scheduled to be streamed live via the Internet, and the SBE National Awards Reception and Dinner.

More information about the SBE National Meeting will be available in the Auguest issue of The Signal and in SBE-news. Members who live in, or are within several hours drive of the Denver area, are encouraged to attend. Save the dates: October 23-24 for the 2012 SBE National Meeting.

Society reports productive NAB Show

It's been almost two months since the end of the 2012 NAB Show, but this is our first opportunity in The Signal to review some of the highlights of the show from the SBE's perspective. From most accounts, it went very well for exhibitors with some reporting that it was their "best show in years." NAB reported more than 92,000 were in attendance. That was evident at the SBE booth as there was steady traffic much of the week.

The show marked the official announcement that the new SBE Certified Broadcast Networking Engineer (CBNE) certification is now available. Applicants will be able to sit for the exam this month and the CBNE CertPreview was available in April. For more about the CBNE, see page 1 of this issue of The Signal.

More than 70 SBE members took advantage of a special station set up at the SBE booth to write a letter to their U.S. Representative, asking him or her to co-sponsor H.R. 2102, the FCC Technical Resource Act. SBE's general counsel, Chris Imlay, personally delivered those letters to the offices of the congressmen. Our hope is that the bill will pass "in suspension" later this year. The letter writing effort was aimed at getting more co-sponsors to help make that happen.

A delegation from the SBE's sister organization in Mexico, AMITRA, made a visit to the SBE booth on Wednesday of the show. They met with representatives of the SBE, including president, Ralph Hogan, CPBE, DRB, CBNT to discuss educational exchanges. Among the representatives of AMITRA was David Salas, AMITRA president. SBE's affiliation with AMITRA goes back more than 20 years.

The SBE Board of Directors held its regular spring meeting on Sunday, April 15. Among the actions taken was the Board's approval of two appointments by SBE President, Ralph Hogan. Board member Charles "Ched" Keiler, CPBE, 8-VSB, CBNT, was ratified to serve as chairman of the SBE Government Relations Committee. Keiler takes over from SBE past president, Barry Thomas, CPBE, CBNT. The Board also approved the appointment of Paul Burnham, CPBE to serve as chairman of the new SBE Mentoring Sub-committee. This group

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LETTER FROM THE PRESIDENT

by Ralph Hogan, CPBE, DRB, CBNT
SBE President
rhogan@kjzz.org

Society of Broadcast Engineers establishes mentoring program for broadcast engineers

On January 21, 2012 the SBE Executive Committee, while meeting in Orlando, Fla., established a new Ad-hoc Mentoring Subcommittee of the SBE Education Committee to implement a mentoring program for the society. The sub-committee under the leadership of the newly appointed Mentoring Program Chairman, Paul Burnham, CPBE, will develop criteria for the program and guidelines for mentors and mentees.

One thing that has been lost over the years in broadcast engineering is taking time for mentoring. Why have most of the traditional mentors vanished? Consolidation and downsizing have taken a toll on the broadcast engineering profession. A good number of knowledgeable engineers exist but have multiple stations or clusters to look after and less personnel resources to accomplish assigned tasks. Broadcast engineers are asked to continually do more with less; this translates into long work hours with not much time to do anything extra.

A number of established engineers have participated either as a mentor or mentee or both during the course of their careers in broadcasting. Consider the relatively young engineering professional who has a thirst for learning but does not have access to a veteran engineer willing to identify needs or areas for improvement, reveal new opportunities, provide personal networking opportunities and offer additional knowledge. The SBE Mentoring Program intends to fill this void.

There is a lot of published information about mentoring, from small organizations to top Fortune 500 corporations. One thing is clear, mentoring takes time. It takes time for the actual meetings between mentor and mentee, but also for the individuals who make the time to prepare themselves for their role as mentors. This preparation may lead to an increased self-awareness, confidence, and competence in their role.

Being a successful mentor requires several critical skills. Mentors need to be comfortable with abilities they possess, which they will need to draw upon. The more comfortable a mentor is with a skill, the more likely they will use it.

Coaching: Mentors often need to raise a mentee's current performance to help them increase momentum and drive to define and achieve professional goals.

Facilitating: Facilitating is the means by which a mentor encourages a mentees self-reflection and ownership. A mentor's ability to identify the mentees needs or deficiencies and develop strategies for overcoming such obstacles to their success can unlock the door to increased potential for the mentee.

Listening: To be an effective mentor one must be a good listener. This is impossible to achieve without active listening skills.

Goal Setting: Well-defined goals guide mentors in the relationship and helps keep them on track. Setting goals and developing a work plan to achieve those goals requires time, good quality dialogue and cooperation.

Feedback: Mentees rely on mentors for honest and direct advice. Mentors need to be responsive in providing feedback by asking for it, giving it and receiving it. This helps the mentee make solid progress in a positive direction.

Historically, engineering mentors were older and in more senior positions than their mentees, this is not necessarily the case any more. The trend of reverse mentoring is taking off across the globe.

There is an assumption that experienced senior level broadcast engineers or managers have a lot to teach, and junior engineers have a lot to learn. However, this is not always accurate. In many operations, the pairing of senior engineering staff or management with younger engineers may allow for guidance in new technology, Smartphone or tablet apps, social media and web presence.

Some older engineers may recoil at the idea of someone younger mentoring him or her, especially since they usually have many more years of broadcast experience. It is a mind-set. This mind-set can be changed and found rewarding if allowed to be nurtured.

Not all mentoring has to occur on a local level. Given today's technology, mentoring can take place anytime, anywhere. A long distance mentoring partnership may take more time and effort to establish. Make sure mentor matches, especially long-distance matches, are fitting in relation to career path, technical competencies, management experience,

MENTOR, page 10

LEGAL PERSPECTIVE

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

LPFM and FM Translators – the Old Bait and Switch

At the end of March, the FCC issued two orders interpreting the Local Community Radio Act ("LCRA") which was passed by Congress in late 2010. The FCC also clarified other issues affecting the LPFM service. The first of the two orders attempted to resolve the priorities between LPFM stations and the thousands of applications for new FM translators still remaining to be processed from the FCC's 2003 FM translator window. The second order (which also contains a Notice of Proposed Rulemaking asking for comment on several proposals) addresses the interference protection requirements between LPFM and full-power FM stations and the elimination of third-adjacent channel protections. It also proposes some changes in LPFM rules, including allowing LPFM stations to operate with up to 250 watts ERP in smaller markets, and even to operate FM translator stations of their own.

The first order attempts to resolve the issue of the FM translator applications that have been pending since 2003. LPFM advocates contend that the thousands of applications that remain to be processed will foreclose LPFM opportunities, particularly in larger markets, by using up all available spectrum. The translator applicants, on the other hand, argue that translators provide an important service - expanding the reach of noncommercial stations and now allowing new outlets to more readily make available to the public the signals of AM stations and FM HD streams, and that they are entitled to adjudication of their applications filed in full compliance with the rules at the time.

The order provides that in markets where the FCC has found that spectrum is limited for LPFM opportunities, translator applications will be dismissed to provide opportunities for a certain base level of LPFM service. The order does not fully adopt the system proposed in the FCC in July of 2011 which would have required the blanket dismissal of all translator applications in "spectrum limited" markets. Instead, it provides opportunities for some translators to be processed even in markets with limited LPFM opportunities, where it can be shown that the translator would not block new LPFMs.

The LCRA calls for both translators and LPFM stations to be made available in the various communities across the country. In determining where to process the pending translator applications, the FCC decided that it must take into account not only the pending translator applications, but also existing translators, in order to assess whether both services were available in particular communities. Finding that translators were already available in most markets, the FCC decided that, in many markets where new translator applications blocked the availability of spectrum for new LPFM stations, the translator applications would be dismissed.

Based on that analysis, FCC decided to adopt "service floors" for LPFM stations, guaranteeing that there would be a minimum number of available channels for LPFM stations in each market. The number of LPFM channels needed in a market range from eight to 12, depending on the size of the market. This floor was based not on the number of translators already available in the market, but instead the average number of noncommercial stations in particular market sizes. That basis for determining how many LPFMs are needed in a given market is as clear as mud. Where translator applications preclude opportunities to meet the LPFM service floors, they are to be dismissed.

The FCC backed away from its prior determination that markets would be all or nothing for translator applicants. Instead, it adopted a much more complicated process, based on a grid overlay process. Using this complex methodology, FCC refers to markets with insufficient spectrum to allow for the enough LPFM stations to meet the service floor if all translator applications are processed as "spectrum-limited markets." In these spectrum limited markets, if a translator applicant can show that it proposes to operate on a channel where LPFM stations could not operate because of limitations imposed by nearby full-power stations, then the translator application will not be dismissed. However, in making the showing that the translator grant is possible, the translator applicant must assume that any LPFM applicant will be able to obtain a waiver of interference to full-power stations operating on second-adjacent channels. Also, any translator applicant proposing to serve areas in the largest markets must demonstrate that its proposed translator will not preclude an LPFM opportunity at the site of its proposed translator. If the translator application would preclude such use, the applicant can show that there is another channel available at the site for LPFM use. If it cannot make either showing, the translator application will be dismissed.

The FCC determined that one translator applicant can continue to prosecute 50 applications on a nationwide basis. In local markets, applicants are limited to prosecuting one application in any spectrum-limited market. These caps were adopted to deter speculation in construction permits for new translators.

Apparently, applicants will have to elect which of their applications to continue to process before any evaluation will be made of which will be allowed to be processed under the LPFM protection criteria. After the determinations are made as to which applications to process by those who are subject to the cap, and whether or not applications are limited by LPFM opportunities, the FCC will open a settlement window so that the remaining applications that are mutually exclusive can attempt to work out their differences. After the settlement window,

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MEMBERS ON THE MOVE

John Bisset is the new director of technical services and education services at Elenos.

Carl Davis, CPBE has left the University of North Carolina Center for Public Television to join Electronics Research, Inc. as the eastern region account manager for radio broadcast systems.

Steve Tuzeneu, CBT is now the general manager and director of engineering at WYCM-FM in Charlton, Mass.

Ben Barber has been elevated to the office of president/CEO of Inovonics Inc., a new Sustaining Member of the SBE.

CERTIFICATION UPDATE

by Chriss Scherer, CPBE CBNT
cscherer@sbe.org
Scherer is a member of the SBE Certification Committee and the editor of Radio magazine, Overland Park, Kan.

Creating the perfect question

When you take an SBE certification exam, you are given 50 multiple-choice questions to assess your knowledge of the certification topic. In the case of the Certified Senior Television Engineer, Certified Senior Radio Engineer and Certified Broadcast Networking Engineer, you are also given an essay question. From an examinee's view, you only see a small portion of the question database that has been developed by the Certification Committee. We on the national committee are often asked how these questions are created.

The SBE Program of Certification maintains several question databases. There are two multiple-choices databases: One for the regular exams, and one that is created from this set to be used for CertPreview. The Committee vigorously protects the regular database to maintain its integrity and avoid it ever being compromised. That's why we create the second database for CertPreview. The CertPreview questions are based on regular questions so we can still provide a flavor of what the questions are like and what information will be covered. When the Committee adds or subtracts questions from the regular database, sample questions are added or subtracted from the CertPreview database. The Committee also maintains a database of essay questions.

With all this material in use, the Certification Committee spends a great deal of time reviewing the questions to ensure they are still accurate and relevant. Part of the ongoing question review includes adding new questions to the databases. This is where the experience of the Certification Committee members is most valuable. As technology evolves, FCC Rules change and industry practices develop, we update the question databases to stay current.

The members of the Certification Committee often write new questions themselves. At times, the Committee has accepted question submissions from industry groups, including the ATSC and iBiquity. Regardless of the source, all submitted questions are reviewed for relevancy, appropriate incorrect answers (called detractors) are created, and are then categorized to be used on the appropriate exam.

As you can see, maintaining these databases is an involved process. Creating new questions can be tedious for the volunteer committee, which is why at the Committee's April meeting at the 2012 NAB Show it was suggested we tap a built-in resource: You, the SBE member. The SBE has a natural knowledge base in its membership, and we want to use this resource.

The last time you took an SBE certification exam, perhaps you felt a topic was not covered. Submit a question about that. As you perform your daily work, I'm sure you encounter situations you know are unique to media and broadcast engineering. Submit a question about that situation.

Questions can be multiple choice or essay suggestions. Your submission should include the right answer and, in the case of a multiple-choice question, several detractors (incorrect answers). The Certification Committee will review all submissions and add them to the database if appropriate.

Send your submissions to Certification Director Megan Clappe (mclappe@sbe.org) at the national office. They will be reviewed by the Certification Committee.

The Society of Broadcast Engineers is a volunteer organization, and it is through the efforts of its members it continues to succeed. We look forward to receiving your ideas for the SBE Program of Certification.

Society secures Sullivan, Harling as planning facilitators

A strategic planning conference to plot the future course of the SBE is scheduled for June 23. The SBE is enlisting the team of A. Charlene Sullivan, Ph.D. and Kenneth Harling, Ph.D., to facilitate and lead the group through the day-long strategic planning process.

Dr. Sullivan is an Associate Professor of Management at the School of Management and the Krannert Graduate School of Management at Purdue University and has been a faculty member at Purdue since 1978. Since 2000, Dr. Sullivan has served as the Management Faculty Advisor for the Technical Assistance Program at Purdue, which offers no-cost consulting for Indiana businesses. She has facilitated strategic planning sessions for numerous Indiana businesses and organizations as part of the TAPS project including: Fairfield Manufacturing, Hoffco, Inc., Sperry and Rice, Defense Finance and Accounting, Passageways, Precision Metal Forming Association, Alpha Engineering, Packaging Logic Inc., AFI Manufacturing, American Container, Healthcare Tap Purdue, Noble County Economic Development, West Lafayette Indiana Companies to Watch.

Her teaching career includes undergraduate and graduate courses on corporate financial management, financial institutions and markets and financial and managerial accounting. In addition, Dr. Sullivan has served as a risk management consultant for Edgar Dunn & Company since 1994 and a financial analyst for the Indiana Gaming Commission since 1995. Dr. Sullivan has served on the board of directors of several financial institutions and not-for-profit organizations and currently serves on the board of directors of the Lafayette Community Foundation and on the Purdue Employees Federal Credit Union. Dr. Sullivan earned a B.S. degree in Home Economics from the University of Kentucky and a master's and doctorate in Management from Purdue University.

Dr. Harling is a Professor of Strategic Management at Wilfrid Laurier University. He has taught strategy there and at other universities: The German International School for Management and administration, the Pennsylvania State University, Purdue University, the University of Guelph, and the University of Waterloo. In addition he has taught in executive programs in Canada, China, and Nigeria.

"Anyone can come up with a strategy but making it work is where the fun begins!" said Harling.

Harling's passion is strategy execution. His education includes a bachelor's degree from the University of Guelph and a master's and doctorate from Purdue University.

As the facilitators for the SBE strategic planning conference, Dr. Sullivan and Dr. Harling will assist all attendees to recognize and articulate the society's needs and build a consensus on the most efficient and effective way to plot the course of the SBE.

CQ

Certification Question

answer on page 10

50V at 60Hz flows 0.1A through the coil of a relay having 10 ohms of resistance. What is the approximate impedance of the coil?

A. 5 ohms
B. 20 ohms
C. 200 ohms
D. 500 ohms
E. 510 ohms

New SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION

Current CPBE and Certified Senior Broadcast Engineer members who have maintained the SBE certification continuously for 20 years 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 approved, the person will continue in his/her current level of certification for life.

Certified Professional Broadcast Engineer® (CPBE®)
Hal Hostetler, Tucson, Ariz. – Chapter 32
George Maier, Sudbury, Mass. – Chapter 11

Certified Senior Television Engineer™ (CSTE®)
Glenn Gunnufsen, Hardy, Va. – Chapter 78

Certified Broadcast Television Engineer™ (CBTE®)
Paul Waegele, Roseville, Calif. – Chapter 43

Certified Broadcast Networking Technologist® (CBNT®)
Glenn Gunnufsen, Hardy, Va. – Chapter 78
Thomas McGinley, Seattle, Wash. – Chapter 16

NEWLY CERTIFIED CPBE

Applicant must have had 20 years of professional broadcast engineering or related technologies experience in radio and/or television. The candidate must be currently certified on the Certified Senior Broadcast Engineer level.

Certified Professional Broadcast Engineer (CPBE)
Charles Bullett, III, Emeryville, Calif. – Chapter 40

FEBRUARY EXAMS

Certified Senior Television Engineer (CSTE)
Arthur Lee Clardy, III, Lafayette, La. – Chapter 72
Timothy Kelly, Alexandria, Va. – Chapter 37

Certified Senior Radio Engineer™ (CSRE®)
Arthur Lee Clardy, III, Lafayette, La. – Chapter 72

8-VSB Specialist™ (8-VSB™)
John Mackey, Beaverton, Ore. – Chapter 124

SPECIAL PROCTORED EXAMS

Certified Broadcast Technologist (CBT)
Eric Tepe, Smyrna, Ga. – Chapter 5

Certified Broadcast Networking Technologist (CBNT)
Jared Baehmer, Graham, Wash. – Chapter 16

COURSE COMPLETION

Certified Broadcast Technologist (CBT)

CLEVELAND INSTITUTE OF ELECTRONICS
Eric Kuglin, Chandler, Ariz. – Chapter 9
William Medlock, Raleigh, N.C. – Chapter 93

NAPA VALLEY COLLEGE
Michael Bulatao, St. Helena, Calif. – Chapter 40
Michael West, Napa, Calif. – Chapter 40

CERTIFIED BY LICENSE

Certified Broadcast Technologist (CBT)
Edwin Acevedo, Jacksonville, Fla. – Chapter 7
Clifford Button, Girard, Ohio – Chapter 122

Steve Fluker, Orlando, Fla. – Chapter 42
Astley Grant, Newmarket, Ontario, Canada
William MacDonald, Mesa, Ariz. – Chapter 9

Jimmie Rushing, Jonesboro, Ark.
Brian Voss, San Antonio, Texas – Chapter 69

RECERTIFICATION

The following completed the recertification process by re-examination, point verification through local chapters and national Certification Committee approval and/or met the service requirement.

Certified Professional Broadcast Engineer (CPBE)
Stephen Davis, Coweta, Okla. – Chapter 56

Certified Professional Broadcast Engineer (CPBE)
AM Directional Specialist™ (AMD™) Digital Radio Broadcast Specialist™ (DRB™)
Arthur Reis, New Lenox, Ill. – Chapter 26

Certified Senior Radio Television Engineer™ (CSRTE™)
Robert Carroll, Slidell, La. – Chapter 72

Certified Broadcast Radio Engineer™ (CBRE)
David Halperin, El Paso, Texas – Chapter 38
Robert Jorgenson, Pullman, Wash. – Chapter 16
Stuart Muck, Fond du Lac, Wis. – Chapter 80
Evan Stanek, Appleton, Wis. – Chapter 80
Friend Weller, Logan, Utah – Chapter 62

Certified Broadcast Television Engineer (CBTE)
Richard Dyer, Virginia Beach, Va. – Chapter 54
George Randell, Nashville, Tenn. – Chapter 103
Robert Russo, Guilford, Conn. – Chapter 14
Greg Wynter, Toronto, Ontario Canada

Certified Broadcast Networking Technologist (CBNT)
Randy Garrett, Atlanta, Ga. – Chapter 5
Charles Grantham, Andolusia, Ala. – Chapter 118
Charles Grider, Montgomery, Ala. – Chapter 118
Brian James, Birmingham, Ala. – Chapter 68
Arthur Reis, New Lenox, Ill. – Chapter 26

Certified Broadcast Technologist® (CBT)
Stephen Ambrose, York, Pa. – Chapter 41
Timothy Cason, Newnan, Ga. – Chapter 5
Robert Dunn, River Ridge, La. – Chapter 72

R. Allen Fowler, Murray, Ky. – Chapter 103
John O'Brien, La Canada, Calif. – Chapter 47
Javier Ramos, San Antonio, Texas – Chapter 69
Douglas Salewsky, Camby, Ind. – Chapter 25
Paul Spinelli, Middle River, Md. – Chapter 46

Certified Television Operator® (CTO)
Frederick Fazekas, Holbrook, N.Y.
James Long, Potomac, Md. – Chapter 37

Certified Radio Operator® (CRO)
Richard Drotleff, Stow, Ohio

CERTIFIED RADIO OPERATOR

David Meyer, Two Rivers, Wis.

ITHACA COLLEGE
Matthew Dezii, Ithaca, N.Y.

CERTIFIED TELEVISION OPERATOR

Ryan Ahrenholz, Austin, Minn.
Kermitt Brown, Marietta, Ga.
Don Gilbertson, Austin, Minn.
Lance Houser, Rochester, Minn.
Tim Lange, Austin, Minn.
Carl Rayman, Austin, Minn.
Will Ruple, Boulder, Colo.

Elizabeth Silva, Phoenix, Ariz.
Stephen Winn, Houston, Texas

NORMANDY HIGH SCHOOL
Neil Golias, Parma, Ohio
William Kelley, Parma, Ohio
James Lessick, Parma, Ohio

Miguel Manalo, Parma Heights, Ohio
Angelica Pastrana, Parma, Ohio
Daniel Vranic, Parma, Ohio
Matthew Westfall, Parma Heights, Ohio
David Winfield, Parma, Ohio

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will establish a program where members with more experience will mentor those newer to the business, providing them with a valuable professional resource. The sub-committee comes under the SBE Education Committee.

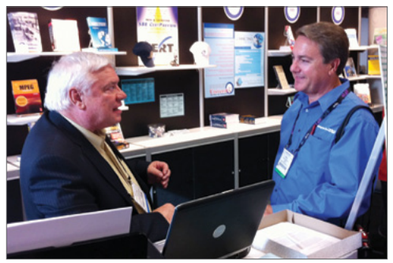
The annual six-day NAB Broadcast Engineering Conference, which was chaired by SBE member, Steve Fluker, CBT of Chapter 42 in Orlando, saw increased attendance over 2011, according to NAB staff. The Saturday Ennes/SBE program, organized by SBE member and Ennes Trustee, Fred Baumgartner, CPBE, CBNT, had close to 300 people in attendance part of the day; a significant increase over 2011. Many who attended the PBS and Public Radio Engineers technical conferences earlier in the week, attended the Ennes program.

An SBE highlight of the week was the annual spring membership meeting on Tuesday afternoon. Close to 150 members and guests were in attendance and heard program updates from Hogan and other SBE national leaders. A number of SBE chapter certification chairmen were recognized for their service, including Dick Burden of Chapter 47, Los Angeles and Eddy Arnold, who serves Memphis, Tenn. and the northeastern Arkansas area. Both of these members have served for 25 years.

Thanks to our member meeting sponsor, Vislink Broadcast, a few members came away with $25 restaurant gift cards and one member, Jim Turvaville of Colorado Springs, Colo. won a $250 Best Buy gift card. The first 100 people in attendance received a special SBE pen, again, courtesy of Vislink Broadcast. The winner of the week-long SBE Twitter contest was announced during the Membership Meeting. Michael DeLaRosa won a $25 Fry's Electronic gift card.

The SBE booth featured a daily contest where one visitor won a $200 Fry's Electronic gift card. The prizes were made possible throughout the week with daily booth sponsorship from Ross Video on Monday, Trilithic on Tuesday and DSI RF Systems on Wednesday.

right Officers of the SBE meet with AMITRA officers at the SBE booth during the NAB Show. Pictured from left to right are SBE Executive Director John Poray, CAE, Sergio Rojano, SBE President Ralph Hogan, CPBE, DRB, CBNT, SBE Past-President Vinny Lopez, CEV, CBNT, David Salas, John Schneider, Carlos Mullau, Guadalupe Chapaito.
bottom right SBE President Ralph Hogan, CPBE, DRB, CBNT, presents Louella Edwards with the first booth giveaway sponsored by Ross Video on Monday, April 16. Edwards won a $200 Fry's Electronics gift card.
below SBE Board Member Ralph Beaver, CBT and Paul Kempter of the SBE Chapter 39, Tampa Bay discuss a letter writing campaign to solicit co-sponsors for H.R. 2102 in the SBE booth at the NAB Show.



Karalee Slayton of Trilithic presents Walt Gradzki, CPBE with a Fry's Electronics gift card. Trilithic, Ross VIdeo, and DSI RF Systems were sponsors of the SBE booth and daily gift card giveaway.

above Jim Bernier, CPBE, CBNT, presents Chris Alexander, CPBE, AMD, DRB and David Preister, CPBE with five year national certification committee service anniversary plaques.
right NAB Show attendees listen to presentations at the Ennes Workshop Saturday, April 14, 2012 in Las Vegas, Nev.

SBE Education Director Kimberly Kissel and Bill Hayes, Iowa Public TV, discuss educational opportunities at the NAB Show SBE booth.

Jim Bernier, CPBE, CBNT, presents Dick Burden, CPBE, and Eddy Arnold, CSTE, CBNT, with 25-year chapter certification chairman service anniversary plaques during the membership meeting.

Jim Bernier, CPBE, CBNT, presents Britt Lockhart, CPBE and Ernie Harvey, CPBE with five-year local chapter certification chairman service anniversary plaques during the membership meeting.

above Jim Bernier, CPBE, CBNT, presents Alan Alsobrook, CSRE, AMD, CBNT and Mark Fehlig, P.E., CPBE, 8-VSB, CBNT with one-year local chapter certification chairman pins.
below Vice President Joe Snelson, CPBE, 8-VSB, presents John Collinson, CPBE, 8-VSB, AMD, CBNT, Bob Kelley, CSRE, CBT, CBNT and John Turvaville, CSRE with prizes at the membership meeting.

CANDIDATES from page 1

membership no later than 4 p.m. EDT on July 13, 2012.

All four officer positions will be on the ballot as will six of the 12 director seats. Officer terms are for one year and director terms are for two years. Election ballots will be emailed to voting members in good standing on July 26 and will be completed online. Voting members who chose to opt out of electronic balloting during this year's dues renewal period will receive their ballots in the mail.

Mailed ballots are to be returned by USPS, express delivery or personal hand delivery so they are received by the National Office by 4:30 p.m. EDT on August 28. Electronic balloting must also be completed by 4:30 p.m. EDT on August 28. Votes will be tabulated on the evening of August 28.

Candidates elected will take office during the SBE National Meeting on October 24 in Denver, Colo. The National Meeting is being held in conjunction with the annual Rocky Mountain Audio/Video Expo and the Broadcast Engineering Boot Camp, presented by SBE Chapter 48 of Denver and the Rocky Mountain Section of SMPTE.

The Nominations Committee is chaired by past national president and current member of the board, Ray Benedict, CPBE of Chapter 37 in Washington, D.C. Serving on the committee with Benedict are Ted Hand, CPBE, 8-VSB, AMD, DRB, of Chapter 45, Charlotte, N.C. and Gary Liebisch, CPBE of Chapter 52, Central Ohio. Hand is a past national officer and Liebisch is a current member of the board.

The list of candidates as submitted by the SBE Nominations Committee includes the members below.

Vice President
Joseph Snelson, CPBE, 8-VSB
Vice President of Engineering
Meredith Corporation
Las Vegas, Nev.
Chapter 128

Secretary
James Leifer, CPBE
Director of Engineering and IT
Clear Channel Communications
Boynton Beach, Fla.
Chapter 53

Treasurer
Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT
Corporate Regional Engineer and DoE
Entercom Communications
Greenville, S.C.
Chapter 86

Director Candidates

Tim Anderson, CPBE, DRB, CBNT
Mgr. Radio Market &
Product Development
Harris Corp.
Covington, Ky.
Chapter 33

Andrea Cummis, CBT, CTO
Vice President
Vantage Technology Consulting Group
Roseland, N.J.
Chapter 15

Steve Fluker, CBT
Senior Engineer
Cox Media Group Orlando
Orlando, Fla.
Chapter 42

Kirk Harnack
Vice President- Telos Products
Telos Systems
Nashville, Tenn.
Chapter 103

John Heimerl, CPBE
Vice President
WHRO TV/Radio
Norfolk, Va.
Chapter 54

Gary Kline, CBT, CBNT
Senior Vice President of
Corporate Engineering & IT
Cumulus Media
Atlanta, Ga.
Chapter 5

Scott Mason, CPBE, CBNT
Regional Director of Engineering
CBS Radio
Los Angeles, Calif.
Chapter 47

Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNT
Asst. Director of Educational Broadcast
Services, Office of Information Technology
Texas A&M University
College Station, Texas, Chapter 99

WELCOME TO THE SBE

NEW MEMBERS

Michael R. Taylor - Washington, D.C.
Edwin Acevedo - Jacksonville, Fla.
Stephen Brown - Kansas City, Kan.
Jimin Kwon - Las Vegas, Nev.
David Norman - Hannibal, Mo.
Mark Wurfl - Santa Clara, Calif.
Aaron M. Adams - Yukon, Okla.
Alex Frausto - Tujunga, Calif.
Tres Inscore - York, Pa.
Seth B. Welcker - Lahaina, Hawaii
Gary M. Avila - Watsonville, Calif.
Tye C. Barnett - Spokane, Wash.
Matthew L. Buck - Seattle, Wash.
Trevor A. Clendenin - Christiansted, Virgin Islands
Scott J. Gill - Arlington, Texas
William F. Medlock - Raleigh, N.C.
Terry Neal - Sterling, Va.
Joshua R. Burke - Bend, Ore.
Clifford N. Button - Girard, Ohio
Jeffery M. Hartman - Amarillo, Texas
Russ Loyd - Pittsburgh, Pa.
Prasad Ranganath - Port-Au-Prince, Haiti
Andrew K. Rodes - York, Pa.
Carl Stopper - South Bend, Ind.
Bill M. Baty - Burke, Va.
Brian M. Eighmey - Temecula, Calif.
Javier J. Garcia - Miami Springs, Fla.
Ajay Nair - Eugene, Ore.
Justin T. Howe - Elroy, Wis.
Andy Ma - Richmond, Canada
Gonzalo L. Penagos - Miami, Fla.
Matthew S. Sperling - La Crosse, Wis.
Patrick Taylor - Cleves, Ohio
Austin J. Edeal - Johnson Lake, Neb.
Steven Lee - Fresno, Calif.
Ali Abdul-Sater - Beaverton, Ore.
Brian W. Britt - Roanoke, Va.
Anthony J. Dimsdale - Woodruff, S.C.
Raul A. Ochoa - Lexington, Neb.
Peter W. Tierney - Littleton, Mass.
Michael J. Case - Dundee, Fla.
Kevin L. Thompson - Simi Valley, Calif.
John D. Johnson - Davenport, Iowa
Raul A. Miranda - Brookfield, Ill.
Anthony Valdespino - Lancaster, Calif.
Abu Sedighian - San Jose, Calif.
Samuel O. Imoh - Ikeja, Nigeria
Kevin F. Kantorski - De Kalb, Ill/
Mark Kogan - Modi'in, Israel
Pasupathy G. Krishnasamy - Kuala Lumpur, Malaysia
Raymond S. Larson - Portland, Ore.
Brad R. Richfield - Hillsboro, Ore.
Mohammad Saifi - Abu Dhabi, UAE
Stephen B. Seedansingh - Valsayn, Trinidad & Tobago
Niaz A. Siddioui - Dubai Media City, UAE
Michael E. Smith - Stanley, N.C.
William P. Spaulding - Lynchburg, Va.
Donald S. Wilson - North Hollywood, Calif.
Henry C. Cianci - Mantua, N.Y.
Christopher G. Hildrew - Hummelstown, Pa.
Sharon Lash - Columbus, Ohio
Tony McCallum - Napa, Calif.
Gerry P. Schlosser - Perkasie, Pa.
David W. Schroeder - Holt, Mo.
Kevin P. Drewes - Spokane Valley, Wash.
Omran Abdallah - Abu Dhabi, UAE
Darya Gol - San Jose, Calif.
Dan Gurin - Somerville, Mass.
Sean Spencer - Villa Park, Ill.
Chris Wheatley - Ithaca, N.Y.

REINSTATED MEMBERS

Charles H. Esch, II - Ramsey, Minn.
Carl T. Cutforth - Aurora, Colo.
Dylan T. Sjollema - Pinellas Park, Fla.
Jeffrey J. McGinley - Seattle, Wash.
Richard N. Kipp - Pembroke Pines, Fla.
Donald E. Engelhardt - Hollister, Calif.
David Ramirez Palafox - Alhambra, Calif.
Roger K. Bennett - Great Mills, Md.
William H. Gilbert - East Greenbush, N.Y.
Robert Carter - Little Falls, N.Y.
Manjinder S. Sangha - Brampton, Canada
Benjamin Hill - Pennsauken, N.J.
Chris B. McDonald - Laurel, Md.
Anthony Tsosie - Hooper, Utah
Greg Folk - South Lake Tahoe, Calif.
Michael A. Dwinell - Syracuse, N.Y.
Anthony G. Padgett - Cocoa, Fla.
William M. Verebely, Jr. - Chesapeake, Va.
Richard D. Mills - Burbank, Calif.
Mina Zaki - San Diego, Calif.
John K. Thomas - Roanoke, Va.
Allen L. Baylus - Reisterstown, Md.
Francis A. Zanker - Taberg, N.Y.
D. Thomas Higgins, Jr. - Tucson, Ariz.
Robert W. Young - Barrie, Canada
William E. Harp - Peru, N.Y.
Patrick O. Roberts - Oklahoma City, Okla.
Steven C. Thompson - Marietta, Ga.
Jerry J. Parodo - Manawa, Wis.
Lamonte B. Tyler - Baltimore, Md.
Alexandre B. Gonsalves - Ras al Khaimah, UAE
Gary E. Watkins - Columbiana, Ala.

NEW STUDENT MEMBERS

Kyle Bell - Largo, Fla.
Christopher Perrone - Pittsburgh, Pa.
Andrew Hentrich - Stoughton, Wis.
Sohyun Na - Lansing, Mich.
Justin D. Bivens - Lakeland, Fla.
Ka Hei Cheung - Ngan Tau Kok, Hong Kong
Kin Ming Lam - Tseung Kwan O, Hong Kong
Bing Hua Liang - Hong Kong
Ho Yeung Siu - Tseung Kwan O, Hong Kong
Siu Kai Wong - Tseung Kwan O, Hong Kong
Luen Kin Wong - Hong Kong
Ze Yang Yue - Hong Kong
Marlo Bloxson - Las Vegas, Nev.

REINSTATED STUDENT MEMBERS

Tom Morris - Miami, Fla.
Wai Kit Chung - Kwai Chung, Hong Kong
Lam King Fung - Tseung Kwan O, Hong Kong
Jason Chun Ling Lau - Tseung Kwan O, Hong Kong
Yin Hong Mak - Tsz Wan Shan, Hong Kong
James Heasley - Kailua, Hawaii

NEW ASSOCIATE MEMBERS

Keith Reising - Columbus, Ind.
Dave J. Falkner - Murrysville, Pa.
Mary A. Seidler - Bretton Woods, N.H.
Eileen D. Fredette - Euless, Texas

REINSTATED ASSOCIATE MEMBERS

Len Donovan - Shamong, N.J.

NEW YOUTH MEMBERS

Addison W. Burnside - Mesa, Ariz.

EDUCATION UPDATE

by Gary Kline, CBT, CBNT
SBE Education Chairman
gary.kline@cumulus.com

The SBE education committee has been hard at work soliciting and vetting some great material which should make for excellent learning opportunities throughout the coming year. Please take a minute to check them out for yourself at www.sbe.org. The SBE Leadership Development course is one of our most popular offerings and is worth considering. Please read below and register as soon as possible to ensure your spot!

Leadership course spots still available

The SBE Leadership Development Course challenges you to refine your leadership skills as you better understand and improve how you interact with others. This interactive program is equally beneficial for those who are already in management and for those without prior management or supervisory experience. Subjects include the managing conflict, a self-assessment on leadership behavioral style, generational differences in the workplace and much more.

This three-day course takes place July 31-August 2 in Atlanta, Ga. The cost for members of the SBE is $590 and $640 for non-members. Registration includes course materials and instruction, beverages, a light breakfast each day and dinner one evening.

Webinars by SBE offers course on IPv6

Content consumers are turning to the Internet in their consumption of broadcaster content. The increased use of the Internet also has driven expansion of the Internet. Much of the expansion is occurring in an IPv6 only environment due to the shortage of conventional IPv4 address space.

Carriers and Internet service providers utilize translation devices to provide mixed IPv4 and IPv6 interoperability. The various translation schemes are suitable for TCP based applications such as email and web surfing, but can be detrimental to UDP based real-time media used by the broadcaster. In order to provide the best Quality of Experience (QoE), broadcasters should strive to provide their media content in a native format to IPv6 only users without the need for translation in addition to providing content to the legacy IPv4 users.

This broadcast-centric webinar focuses on IPv6 background, IPv6 networking technology; a look at the current state of the industry in technology fundamentals and principles; implementing IPv6; and suggestions on where to obtain further knowledge.

"If the broadcaster is providing content to the Internet, IPv6 migration should be considered to enable providing the best Quality of Experience to a growing IPv6 content consumer audience without use of translation schemes," said course instructor Wayne Pacena, CPBE, 8-VSB, AMD, DRB, CBNT.

Pecena has over 35 years of broadcast telecommunications experience and is the Assistant Director of Educational Broadcast Services in the Office of Information Technology at Texas A&M University. In this position, he serves as the Director of Engineering of TTVN: The Enterprise Videoconference and Data Network serving the Texas A&M University System and Public Broadcast stations KAMU-TV and KAMU-FM serving the Brazos Valley area. He is responsible for leading technology implementation for the enterprise network of the Texas A&M University System, supporting over 150 IP data locations and over 350 videoconference sites within Texas and internationally. In addition, Pecena is responsible for broadcast technology implementation at KAMU.

Pecena frequently presents on networking technology for the SBE. He has presented at the Ennes Workshops, Webinars by SBE, and is a member of the SBE Technical Presenters Group. The Technical Presenters Group offers SBE Chapters, State Broadcasters Associations and other groups the opportunity to bring qualified presenters to be a part of their educational events.

The cost of the webinar for members of the SBE is $49. For non-members the cost is $69. As always, completion of a Webinar by SBE qualifies for one recertification credit, identified under Category I of the Maintenance of Certificaton for SBE re-certifications. For more information on this webinar or to find out how to bring Wayne Pecena to your area, visit the SBE website under Education.

SOCIETY OF BROADCAST ENGINEERS INC.

2011 AUDITED FINANCIAL STATEMENTS

COMBINED STATEMENT OF ASSETS, LIABILITIES AND NET ASSETS - DECEMBER 31, 2011

Assets	
Cash and cash equivalents	$161,184
Investments	893,716
Office Equipment	30,438
Intangible Assets	6,230
Total Assets	**$1,091,568**
Liabilities and Net Assets	
Liabilities	$0
Net Assets	1,091,568
Total Liabilities & Net Assets	**$1,091,568**

2011 SBE AUDITED REVENUE AND EXPENSE STATEMENT*

Income	
Membership Fees & Support	$370,946
National Meeting	34,224
Certification	66,993
Publications	81,107
Education Services	76,294
Interest & Dividend Income	28,395
Net Realized/Unrealized Gain (Loss) from Investments	(182)
Miscellaneous Income	11,351
Total Income	**$669,128**
Expenses	
Member Services	$301,563
Chapter Rebates	34,881
National Meeting	25,285
Publications/Communications	68,042
Certification	72,794
Education	94,632
Administration	96,425
Depreciation/Amortization	18,130
Total Expenses	**$711,752**
Change in Net Assets	**- $42,624**
Net Assets 12/31/2010	1,134,192
Net Assets 12/31/2011	$1,091,568

* Audited statement reflects modified cash accounting method. Investments are listed at market value.

MENTOR from page 4

professional or educational background and industry knowledge. A suitable long distance match must also satisfy both parties if they are unable to meet in person. Using Skype and videoconferencing to connect allows a mentoring program to become global.

Consider becoming a mentor or mentee regardless of your age, experience level, or title. The SBE encourages participants of all levels to learn or share broadcast engineering skills through the newly established SBE Mentoring Program. Contact Burnham at paul.burnham@e2v.com to learn more about becoming involved as a mentor or mentee.

CQ

Answer
question on page 6

D. 500 ohms

FOCUS ON SBE

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

Research shows education is still the key to success

In the fall of 2011 the NAB Broadcast Engineering Conference (BEC) advisory committee decided that it was time to address the topic of broadcast engineering management in tough times at the 2012 conference; a somewhat unusual departure from the usual technical papers that the BEC is noted for. Fred Baumgartner, CPBE, CBNT and I had the pleasure of representing the SBE and the Ennes Educational Foundation Trust at the BEC committee's two planning meetings. The Committee carved out a one-hour slot of the conference's Monday schedule devoted to this topic. Fred and I each presented a paper dealing with broadcast engineering personnel.

I led with a paper that drew largely from statistics gleaned from the SBE membership database and from the bureau of labor statistics. The purpose was to take a look at who are today's broadcast engineers; their backgrounds, education and areas of knowledge. I also took a look at where the new members of this profession are coming from and what tools are available to engineers to find a job and to employers to fill job openings. The full paper is posted on the SBE website on the Membership section under Industry Links. I encourage you to go there to give it a read.

A main point the paper makes will not be surprising to most of you. The average age of television and radio engineers has been increasing over the last ten years. In fact, based on SBE membership as an indicator of the field as a whole, the average age of a station engineer had increased by four years from 2001 to 2011. The statistics I cited also indicated that there are fewer broadcast engineers, fewer stations and as a result, fewer jobs than ten years ago.

In spite of those numbers, there is a shortage of qualified broadcast engineers in many markets, particularly small and medium sized markets. Even in some major markets it can be difficult to find an engineer with the right skill set. That brings me to another finding, again not surprising; that more stations today are looking for engineers with knowledge in both traditional engineering, i.e., RF, audio and video, but also in IT; computer networks, systems design and repair. More people entering the field are coming in with an education in engineering, electronics and IT.

The lesson to come away with is, if you want to work in broadcast engineering in the future, knowledge in both engineering and IT will be required.

Baumgartner's paper illustrated the evolutionary development of the broadcast engineer since the early days of radio's first broadcasts. How people in this field have

SUCCESS, page 12

Who will be the next SBE Engineer of the Year?

John Luff
2010 Engineer of the Year

Al Grossniklaus, P.E., CBNT
2011 Engineer of the Year

2012 Robert W. Flanders
SBE Engineer of the Year

YOU DECIDE Nominate a deserving member or chapter for a 2012 SBE National Award. Find nomination forms at www.sbe.org.

ENNES EDUCATIONAL FOUNDATION TRUST

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

THANKS TO THE FOLLOWING SUPPORTERS FOR THEIR CONTRIBUTIONS:

Harold Ennes Scholarship
Marissa Acosta, Somerville, Mass.
James Daskiewicz, Omaha, Neb.
Leslie Franzen, Madison, Wis.
Philip Hartman, San Francisco, Calif.
Lance Howell, Erie, Pa.
Joseph Huk, Jr., PE, Adrian, Mich.
David Johnson, Benicia, Calif.
James Kirklin, Mattawan, Mich.
Karl Lahm, Lake Villa, Ill.
Michael LeClair, Watertown, Mass.
James Linn, Atlantic Beach, Fla.
William McCombs, Wichita, Kan.
Jan Pritzl, Milwaukee, Wis.
Robert Sleight, Apex, N.C.
William Steinhour, Herndon, Va.
Barry Thomas, Dunwoody, Ga.
Kenneth Tripp, Dulles, Va.
John Turner, Mountain Lakes, N.J.

Robert Greenberg Scholarship
Craig Fox, Syracuse, N.Y.
David Groth, Red Hook, N.Y.
Joseph Huk, Jr., PE, Adrian, Mich.
James Linn, Atlantic Beach, Fla.

Youth Scholarship
Gregory Foss, Riverside, Calif.
Henry Lam, Houston, Texas
James Linn, Atlantic Beach, Fla.
James Quinn, Riverton, N.J.
Ed Walden, Mt. Laurel, N.J.

MARK YOUR CALENDAR

CERTIFICATION EXAM SCHEDULE

Dates	Location	Application Deadline
Aug. 3-13	Local Chapters	June 1
Nov. 2-16	Local Chapters	Sept. 14
Feb. 8-18	Local Chapters	Dec. 31

ENNES WORKSHOPS

Cleveland, Ohio June 13
Hosted by Chapter 70
members $49; non- members $69

Orlando, Fla. October 5
Hosted by Chapter 42
members $45; non- members $60

SBE NATIONAL AWARDS

Nomination deadline June 15

SBE STRATEGIC PLANNING CONFERENCE

Indianapolis, Ind. June 23

ENNES SCHOLARSHIP

Application deadline July 1

WEBINARS BY SBE

"IPv6 for Broadcasters"
July 11 from 2-3:30 p.m. EDT
members $49; non-members $69

SBE LEADERSHIP DEVELOPMENT COURSE

Atlanta, Ga. July 31-August 2

SBE NATIONAL MEETING

In conjunction with the - Rocky Mountain Audio/Visual Expo and SBE/SMPTE Boot Camp
Denver, Colo. October 23-24
Hosted by Chapter 48

TRANSLATORS from page 6

any remaining mutually exclusive applications will go to an auction.

The limits on application processing by current translator applicants may well cut off the ready supply of additional translators to be used by AM licensees. Even though there may not be a supply of new translators to be used by AMs because of these limits on processing, the FCC did amend its rules to allow the use of new translators by AMs. Under the rules adopted almost three years ago allowing the use of FM translators by AM operators, only those translators already in existence could be used to rebroadcast AM stations. Now, any translator, whenever it is granted, can be used to rebroadcast AM stations.

The impetus driving Congress in its adoption of the Local Community Radio Act was the desire of LPFM advocates for the elimination of all third-adjacent channel protections between LPFMs and full-power FM stations. The FCC interpreted the LCRA to set up two different classes of LPFM stations, each subject to slightly different requirements as to the interference protections they must afford to full-power stations. LPFM stations that operate at locations that meet the third-adjacent channel spacings to full-power stations that previously were required by the FCC's rules are proposed to be subject to one set of rules – rules for resolving interference complaints similar to those that are currently in effect. Stations that operate at sites at distances from full-power stations less than previously required must follow another far more stringent interference resolution standard, the standard that is applied to FM translators by Section 74.1203 of the FCC rules. That Rule requires that the LPFM station remedy all complaints of interference to full-power stations regardless of where these complaints come from – whether inside or outside of the protected contour of the full-power station, and whether to a fixed or mobile receiver.

Finally, with respect to waivers to permit LPFMs to operate on second-adjacent channels of full power FM stations, FCC tentatively determined that, if there is any interference, the LPFM must cease operations.

All in all, not a good decade to have been a translator applicant. More on this subject later on.

SUCCESS from page 11

adapted to numerous changes in technology, regulations and economics. Baumgartner's conclusion was that, as in the past, market conditions will determine the future and that the broadcast engineer will come out of it all right. That supply and demand will determine the number of jobs, what skill sets are needed and, yes, the salaries and benefits provided. In this assessment too, continuing education will be perhaps the most important factor for those who wish to finish their career in this field, or to those who are just starting out.

The SBE has, over the years, continued to evolve and adapt with the aim of meeting the needs of its members. That's why the society has placed such an emphasis, especially in the last few years, on providing educational opportunities for members. I encourage you to take advantage of the opportunities that make sense for you. Whether that means seminars, courses, webinars and books from the SBE, or educational offerings from other organizations and companies within the industry. And don't forget your local SBE chapter. The members in your chapter can be a wealth of information and guidance for you and are as close as a phone call, email or chat at the next meeting.

SUSTAINING MEMBERS Support the companies who support the SBE and the industry

ADC Telecommunications Inc. • 1998
Anne-Marie Gunderson (952) 917-3072
Fiber and Copper Interconnect

Advanced Broadcast Solutions • 2012
Arco Groenenberg (206) 870-0244
Systems Integrator

Advanced Electronic Services (AES) • 2012
Eda Gray (336) 719-0755 Ext. 142
Electronic, Hydraulic, Motor Repair

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
John Root (818) 565-4314; Calrec
Broadcast and Audio Consoles

Bracke Manufacturing LLC • 2012
Lawrence Pasternack (949) 756-1600
RF & Microwave Components

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

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

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

Elenos USA • 2012
Mary Ann Seidler (305) 799-5571
Energy Efficient FM Transmitters

Elettronika 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

Graham Brock, Inc. • 2012
Marilyn Matheny (912) 638-8028
Technical Consultation - Radio/TV

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

Inovonics Inc. • 2012
Lukas Hurwitz (831) 458-0552
Radio Broadcast Equipment

JAMPRO Antennas Inc. • 2011
Alex Perchevitch (916) 383-1177
DTV/DVBT & HD Radio-IBOC Solutions

Ka You Systems • 2011
George Gimourginas (301) 585-4302
Audio, Video, IP - Satellite

Kathrein Inc., Scala Division • 1985
Michael W. Bach (541) 779-6500
Antennas for Broadcasting & Communications

Kintronic 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 Bliek (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

Micronetixx 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 (813) 282-8612
Game Day Coordination Operations

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

Nemal Electronics Int'l Inc. • 2011
Benjamin L. Nemser (305) 899-0900
Cabels, 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 AMFMTV

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

Potomac Instruments Inc. • 2012
Guy Berry (301) 696-5550
RF Measurement Equipment Manufacturer

Prime Image Inc. • 1997
Laura Gaines (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

Qualis Audio Inc. • 2011
Douglas Ordon (310) 621-4448
Audio and Loudness Monitoring

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

RCS • 2003
Diana Stokey (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
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 Stagetec 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

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

Shively Labs • 1996
David Allen 888-SHIVELY
FM Antennas & Combiners

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

Sierra Automated Systems and Engineering Inc. • 2011
Cam Eicher (818) 840-6749
Routers, Mixers, Consoles, Intercoms

Sigmet • 2008
Ed Portko (610) 783-6666
Broadcast Equipment Support Sales

Signiant • 2012
Doug Prouty (781) 221-4000
Signiant Content Delivery Software

Snell Inc. • 1995
John Shike (818) 556-2616
Video Equipment Manufacturer

Solid State Logic • 2011
Steve Zaretsky (212) 315-1111 ext.15
Digital Audio Consoles/Router

SpectraRep • 1998
Mark O'Brien (703) 802-2975
Coverage Maps and Services

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) 507-2025
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 (800) 833-9200
Video Test Equipment Manufacturer

Telos Systems/Omnia/Axia • 2003
Denny Sanders (216) 241-7225
Telos Systems - Talk-Show Systems

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

Terrestrial RF Licensing Company • 2003
Steven Slocum (888) 373-4832
FCC Broadcast Auxiliary Licensing Services

TFT • 2011
Darryl E. Parker (408) 943-9323
STL, EAS/CAP, RF Monitors

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
Dawn Shewmaker (317) 845-8000
POTS, ISDN, Codecs & A/V Products

Trilithic • 2011
Tom Cridlin (317) 895-3600
Emergency Alert Equipment (EAS)

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 Broadcast • 1991
Mark Tommey (978) 671-5700
Video Microwave Systems

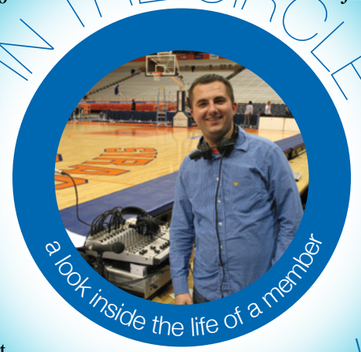
Voice of America • 2011
Richard P. Barnes, PhD, CBRE (202) 203-4848

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

IN THE CIRCLE



Alan Jurison, CSRE, AMD, DRB, CBNT of Chapter 22, Syracuse, is a senior operations engineer at Clear Channel Media and Entertainment. Member of the SBE since 1997. A.K.A.: "Whiz" - I started hanging around the radio station at 15 and they called me "Whizkid". We dropped "kid" when I turned 21. Sphere of Influence: My mentor was Dave Edwards. He taught me engineering. I taught him IT. We made a dangerous combination together in the 17 years we worked together! Getting Started: I was into CB, AM/SW DXing, amateur radio and computer programming at age 12. At 15, I got involved with my favorite radio station (WNTQ Syracuse). Of course, I wanted to be on the air, but Dave thought I would be a great fit in engineering and got me started part-time right before a studio consolidation project. That was a great way to get a jump-start in this industry. I later became full-time while in high school and college. After college, Citadel Broadcasting promoted me to Regional IT Manager/Broadcast Engineer, which I did for almost 11 years. Job Satisfaction: I started with Clear Channel in January 2012 and I'm working on some of the most exciting new platforms in the radio industry. Clear Channel has always been on the forefront of technology and it's great to be involved in those efforts. I get to work with great engineers all across the country, and I'm learning something new from them every day. What I value most about the SBE is ... networking, certification, continuing educational opportunities at conventions, workshops, bookstore and the new online learning seminars. Pictured Here: I am shown engineering a Syracuse University Men's Basketball broadcast. When I'm not working I ... enjoy watching Syracuse University Basketball any way I can. I try to go to most home games, some road games, and even follow them on the road during March Madness whenever possible.

CHAPTER SPOTLIGHT

by Charles Stutsman CSTE ,8-VSB, CBNT
SBE Chapter 54 Chairman

SBE Chapter 54 stays informed on evolving engineering technologies

Gary Sgrignoli teaches an ATSC Transmission System Seminar at WHRO to members of Chapter 54. The chapter prides it's self on providing current technical programs for members.

The SBE Chapter 54, Hampton Roads, formed in 1978; serves radio, television, cable, satellite, and government broadcast engineers in the entire southeast Virginia market. The Chapter meets at the area Public Media Outlet – WHRO on the second Thursday of every month at 1 p.m. The generous support of WHRO enables a central and consistent location that engineers can generally attend after their local news obligations. The PBS affiliate and Chapter 54 have cosponsored special full day HD Engineering sessions by Gary Sgrignoli, RF Safety classes, and equipment demonstrations. We have also sponsored company representatives, SBE webinars, and special guests such as EAS, OSHA, FCC, NASA, and Dominion Power. Field trips include visits to transmitters, NOAA weather service, and the Mid-Atlantic Coast Guard transmission site.

Our attendance averages from 15 to 20 members and guests with larger numbers attending special events like the first IPAWS Webinar and a field trip to the Virginia Beach Emergency Communications Center. Consistent meetings with presenter-provided lunch helps the chapter maintain interest. On infrequent special occasions, the chapter covers the lunch expense, which changes periodically for a diverse buffet service.

Chapter 54 has won multiple SBE National Awards including Best Chapter Frequency Coordination Effort and Best Website. The website was started and managed by Ted Hand, CPBE, 8-VSB, AMD, DRB, former Chapter 54 member and SBE National board member, even after he moved to the Charlotte market. Ted's support has been invaluable especially considering the Chapter no longer distributes a newsletter. The website and emailed meeting notices have replaced the newsletter.

Of great significance is our chapter's ability to bring regional engineers together to share experiences and knowledge. This professional camaraderie enables us to help each other through difficult technological challenges.

Whether through professional connections or presentations, Chapter 54 will continue to focus on helping our members stay abreast of the evolving cable, radio, television and related technologies. We also recognize and encourage accreditation through the numerous SBE Certification opportunities.