Central New York Hosts 50th SBE National Meeting

The Society of Broadcast Engineers will culminate its 50th anniversary celebration at the annual SBE National Meeting, October 7-8, 2014 in Verona, N.Y. The host event is the 42nd annual SBE Chapter 22 Broadcast & Technology Expo, held at the Turning Stone Resort Casino. The Expo is the largest regional tradeshow in the northeast that features technical equipment, products and services for the broadcasting and media industry.

The SBE National Meeting begins on Tuesday afternoon, October 7 with the fall meeting of the national SBE Certification Committee from 2-4 pm. The fall meeting of the SBE Board of Directors will take place from 6 to 10 pm and is open to all members to attend. On Wednesday, activities begin with the annual SBE Fellows Breakfast, honoring all SBE Fellow members, including the newest SBE Fellow, Gino Ricciardelli, CPBE of Chapter 1 in Binghamton, N.Y. In the afternoon, the one-hour SBE Annual Membership Meeting will be held, with a live webcast available to members around the world.

Ricciardelli Named SBE Fellow

The Board of Directors of the Society of Broadcast Engineers has elected Gino Ricciardelli, CPBE, a Fellow member of the Society. Ricciardelli is a Charter and Life member of the SBE, holding member #117. He was a founding member of Chapter 1 in Binghamton, N.Y. in 1964 and became its second president.

Ricciardelli served Chapter 1 as its certification chairman from 1975 to 2011 and as chapter frequency coordinator for almost 20 years. He is life certified as a SBE Certified Professional Broadcast Engineer (CPBE).

Ricciardelli worked at a number of stations in Upstate New York throughout his career and was Chief Engineer of WINR-TV/WICZ-TV for many years. He later became a consultant for Stainless Broadcasting (now Northwest Broadcasting) and was instrumental in getting many of their affiliates on the air with digital transmitters.

Fellow members of the SBE are nominated by their peers and elected by the national Board of Directors. They are recognized for providing conspicuous service or valuable contributions to the advancement of broadcast engineering.

Ricciardelli will be recognized for his achievement at the SBE National Awards Dinner, October 8 in Verona, N.Y., held during the 2014 SBE National Meeting. The National Meeting is being held in conjunction with the Chapter 22 Broadcast & Technology Expo at the Turning Stone Resort Casino. Tickets for the awards dinner ($15) are available on-line at the SBE website, www.sbe.org or by calling the SBE National office at (317) 846-9000. To register for the Chapter 22 Broadcast & Technology Expo, visit www.sbe22expo.org. The expo and educational sessions are free to attend. Companies interested in exhibiting at the expo are invited to also visit the expo website.
engineers event. The room block is reserved for a Stone Resort Casino directly at (800) 771-7711 and overnight accommodations. Contact the Turning guests and exhibitors to use should you desire via Interstate 90.

State Thruway (Interstate 90) at exit 33. If planning to reached directly from east or west via the New York geographic center of New York State and can be exhibit floor reception from 3 to 5 pm will provide a limited time and available on a first come, first served basis.

To register for the free SBE Chapter 22 Broadcast & Technology Expo, visit the expo website, www.sbe22expo.org. Go to Attendee/Registration and complete the on-line form. Pre-registration is recommended. Your Expo registration also serves as your registration for the SBE National Meeting events, except the National Awards Dinner. Tickets for the dinner are available for the discounted price of $15 each and can be purchased on-line at the SBE National website, www.sbe.org. Click on the SBE National Meeting “box”. This event moves around the country each year so, especially for those in the northeast, we hope you’ll make plans to attend.

Board Candidate Nominations

A list of candidates for the summer election of the Society of Broadcast Engineers Board of Directors is assembled. The election begins July 21 and runs through August 21.

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. All four officer positions will be on the ballot as will six of the twelve 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 21 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 at the National Office by 4:30 pm EDT on August 21. Electronic balloting must also be completed by 4:30 pm EDT on August 21. Votes will be tabulated on the evening of August 21.

President
Joe Snelson, CPBE, 8-VSB
Meredith Corporation
Henderson, Nev.

Vice President
Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT
Entercom Greenville, LLC
Greenville, S.C.

Secretary
James E. Leifer, CPBE, CTO
Clear Channel - Miami
Boynton Beach, Fla.

Treasurer
Andrea Cummis, CBT, CTO
AC Video Solutions
Roseland, N.J.

Director Candidates

Benjamin Brmitzer, CPBE, AMD
Clear Channel
Charlotte, N.C.

Tim Anderson, CPBE, DRB, CBNE
GatesAir
Mason, Ohio

Mike Hendrickson, CPBE
American Public Media Group
Lakeville, Minn.

Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
Texas A&M University
College Station, Texas

John Heimerl, CPBE
Fine Tuning Assoc/HSA Inc.
Suffolk, Va.

Gary Kline, CPBE, CTO
Cumulus Media
Atlanta, Ga.

Robert J. Russell, CPBE
Journal Broadcast Group
Tucson, Ariz.

Kimberly Sacks, CBT
CBS Radio
Thanham, Md.

Eric Schechter, CPBE
CBS Radio
Scottsdale, Ariz.
Looking Back at this Year's NAB Show

As I write this, the 2014 NAB Show has just ended. This year’s show was particularly special for me. It was not only my first NAB since becoming SBE President, but it was also 50 years ago that the SBE was born at the NAB convention held in Chicago.

My activities began on Saturday, prior to the exhibits opening, when I gave a presentation to those that are participating in the NAB Technology Apprenticeship Program (TAP). These are young students that have NAB-arranged internships and are looking forward to getting a job someday in broadcasting, either on a station level or in audio/video production. As I shared my personal experiences and talked about the SBE, it excited me to see them taking notes and listening intently. It reinforced in my mind the important role SBE plays in the development of the broadcast engineer. I was able to take the opportunity to stress the importance of chapter meetings as well as the various educational offerings we have on the SBE website. They also joined us for a while at our membership meeting and were acknowledged. At the conclusion of the Technology Apprentice Program, these students will get to take a SBE Certification exam and become a CBT. This fine group of young engineers-to-be, concluded their NAB convention experience by joining us at the SBE Board of Director’s tables for the NAB Technology Luncheon on Wednesday.

Other SBE related activities that occurred concurrently with the NAB convention included meetings of the SBE Board of Directors, Certification Committee, Frequency Coordinators and the Education Committee.

For the frequency coordinators, one of the major topics discussed was the sharing of the 2 GHz BAS band with the Department of Defense (DoD). As you may recall, SBE issued a brief alert to members regarding this. SBE General Counsel, Chris Imlay, and Dennis Wallace, Chair of the National Frequency Coordination Committee, are working together with NAB in negotiating a memorandum of understanding with DoD, establishing the “rules of the road” so to speak, to protect incumbent broadcast BAS operations. Negotiations will be starting soon and Chris Imlay will be providing updates to SBE frequency coordinators and members as they become available. So, stay tuned.

It was exciting for me to sit in on the meeting of the SBE Education Committee chaired by Wayne Pecena. There were discussions ranging from webinar topics to courses being made available through the SBE University series. Wayne, his committee and SBE Education Director, Kristin Owens, have some great programs planned. If you haven’t checked out the various educational offerings we have, I would encourage you to do so. Wayne has conducted a couple of webinars lately on IP Networking. I sat in on one of those and Wayne did an outstanding job of presenting the subject in a very understandable manner.

On Wednesday, I had the opportunity to meet with our friends from AMITRA. Similar to the SBE, AMITRA, is a society for broadcast engineers in Mexico. Through the years of our association with AMITRA, we have been able to exchange ideas and information to help serve the members of our societies. It is always a pleasure to meet each year with this great group of broadcast engineers from our neighbors to the south.

The SBE Membership Meeting held on Tuesday afternoon was well attended with attendance of around 175. There were several things that made this meeting special. First, it was 50 years ago at an NAB convention held in a Chicago hotel that the SBE held its first meeting. In other words, it was the birthday of the SBE.

Secondly, we had a couple of special guests that joined us at our membership meeting. Jim Wulliman, a former SBE President and also known as “The Father of the SBE Certification program”, was present. Jim gave us a few words of greeting when he was introduced. What a thrill it was to have one of the Charter Members of the SBE present with us.

Another special guest at our meeting was Victoria Battison, the daughter of SBE founder and first president John Battison. What a legacy her dad left in beginning a society that now has a membership of over 5,000!

The other special part of the membership meeting was a 12 minute video that was produced by the SBE’s Executive Director, John Poray. John did an outstanding job of assembling material covering the founding of the SBE and its growth over the last 50 years. If you haven’t had a chance to view the video, be sure to do so as it is well worth watching to learn about the Society in which you belong.

When the membership meeting concluded, everyone made their way to a room across the hall where we held the SBE 50th Anniversary Reception. As people entered the doors they were given a ticket for five SBE prize drawings. We gave away five, fifty dollar bills in commemoration of the 50th anniversary. I will add that we are appreciative of the many sponsors that contributed to make this event and prizes possible.

While there was plenty of food, beverage and fellowship going on, we also had a timeline on the front table spanning the major developmental events of the SBE over the course of the last 50 years. There was also a timeline of membership numbers. All members in attendance were invited to sign their name and member number at the appropriate location on the line that stretched 15 feet across the front of the room. The line began at member number one, which was signed by Victoria Battison for her father, and ended at 30,000.

I wish to congratulate the 50th Anniversary committee and the SBE national staff for their hard work in pulling off this successful event. It was apparent that, “A good time was had by all.”

With all the activities of the SBE going on at the NAB Show, you may be wondering if I even had a chance to visit the exhibit floor. The answer to that was, yes, I did. While there was a lot to see, I will mention that the presence of 4K certainly stood out in terms of video. While we don’t transmit that kind of resolution today, we probably will at some point in the not too distant future. With that, it further underscores in my mind the importance of the role the SBE will play in disseminating knowledge through chapter meetings, webinars and our SBE University courses to keep our members current in technology. If you haven’t checked out our opportunities lately, be sure to go to the website and see what is available and that can be of benefit to you in advancing your career.
I first started working with my mentor, Bob Booth, a broadcast engineer first and a communications lawyer second, in September of 1979. Bob was proud of his First Class Radiotelephone license.

One of the first tasks Bob slapped down on my desk was FCC’s Docket 20817, an “Inquiry Relating to the Commission’s Radio Operator Licensing Program.” The docket went back to June of 1976, when the FCC issued a short Notice of Inquiry asking whether or not it should continue its program of licensing what it then referred to as “service operators” of radio stations. At the time, Section 318 of the Communications Act required that the actual operation of all transmitting apparatus for which a station license is required must be carried on by a person holding an operator license. This provision could be waived except for ship, aircraft, broadcast and some common carrier stations. FCC rules at the time called for the adjustment, repair and maintenance of radio transmitting equipment to be performed only by persons holding valid operator licenses of classes specified in the rules. Early in 1979, FCC had reduced the requirement for duty operators at AM and FM stations to have Third Class operator permits, and later in 1979, directional AMs and TV stations were permitted to use any class of operator licensee as long as a First Phone licensee was the chief operator.

FCC took the position that the proper technical operation of a radio station was the ultimate responsibility of the station licensee. Because many station licensees “possessed little or no technical expertise” they had to depend on a Commission-licensed “service operator” to install and maintain the transmitting equipment in conformity with the technical rules. FCC asked whether it was timely to eliminate the requirement that routine station operation be done by a licensed person, and whether service operators of stations could be licensed with a less formal process than the First or Second Class Radiotelephone license.

Bob Booth was contacted by Bob Jones, the President of SBE in late 1979. SBE was, before that time, inactive in FCC regulatory proceedings, but when the FCC began to consider eliminating the First Class Radiotelephone License, SBE decided that it had something to say about it. FCC looked at the Comments in response to the Notice of Inquiry, of which there were few, and proposed in 1980 to discontinue the issuance of new and renewed First Class Radiotelephone operator licenses, and to eliminate the requirement for licensing by examination of operators who perform installation, maintenance and technical supervision of the operation of transmitting equipment for AM, FM, NCE-FM, TV and broadcast translator stations. FCC proposed to permit holders of any class of commercial operator license, including Restricted Radiotelephone permits, to perform technical duties at those stations.

SBE thought that this was ludicrous. We argued that Section 318 of the Communications Act was based on an understanding by Congress that electronic knowledge is critical to the safe operation of high-powered broadcast transmitters, especially when servicing high-voltage equipment, which often necessitated disconnecting interlocks during servicing. Abandonment of even basic knowledge of electrical circuits would create safety issues and most certainly interference issues. We noted that all radio operators were required to be licensed since 1912 and that, while the First Class Radiotelephone examination was not the ultimate test of an engineer’s ability to install, maintain, repair and supervise broadcast transmitting equipment (because no one test could evaluate and classify such expertise in any given situation) the First Phone exam did offer a uniform threshold basis for determining whether a person is familiar with the basic operation of transmission equipment and a working knowledge of broadcast technical regulations. More importantly, it provided a basis for a non-technical broadcast license examinee to have a basis for making a determination of the threshold competency of broadcast engineers at hiring time. By contrast, a “babysitter license” as the restricted radiotelephone permit was referred to at the time, would have no value at all, as it does not demonstrate technical knowledge, and certainly not the pride of accomplishment that, in SBE’s words, “largely distinguishes well-motivated engineers from poor ones.”

SBE’s comments were filed in November of 1980. Many comments were filed, and of those, NAB came alone in supporting the FCC proposal. NAB’s view was that there were “crum” schools that taught to the test, and therefore the First Phone was not a measure of technical knowledge. Further, NAB argued that the reliability of broadcast equipment was so high by that time that an operator requirement was not necessary. NAB did say that “Preliminary discussions between [SBE] and NAB indicate that the two organizations could work cooperatively and with other broadcast entities, to develop a satisfactory testing instrument.”

SBE filed reply comments, aimed at the

NAB’s comments. SBE noted that broadcast licensees were not motivated to achieve technical compliance to the same extent that a First Phone licensee was; the engineer had a powerful incentive to protect that which he of she worked for and which was an icon of technical achievement. SBE noted that it had, for the five years preceding the 1980 Notice of Proposed Rule Making, developed a certification program for the purpose of testing experience and competence, but it was not intended, SBE said, to substitute for the First Phone. The SBE program did not test on FCC rules and regulations, or knowledge of operating procedures. At the time, certification exams were given only twice a year, and therefore they would not be a substitute for the First Phone.

As of course we all know, the FCC had made up its mind long before, and despite an aggressive SBE effort via a Petition for Reconsideration, FCC did eliminate the First Phone, and terminated the proceeding in July of 1982. It replaced the First and Second Class Radiotelephone licenses with the General Radiotelephone operator license, and issued those to First and Second Phone holders. The Third Class Radiotelephone license became the marine radio operator permit. Now, the General is issued for life, but no license is required at all to operate a broadcast station.

Ironically, the FCC’s decision led directly to the SBE certification program’s expansion and its becoming, de facto, the standard method for evaluation of technical competence in the broadcast industry. The First Phone docket was SBE’s first big toe in the water in terms of advocacy at the FCC, and our advocacy agenda is now a dance card that is pretty much full all the time.

Christopher Imlay is General Counsel for the Society of Broadcast Engineers; a post he has held since 1980. He was elected a Fellow of the society in 1997.
The Future of Broadcast Engineering & SBE Education Needs

Another National Association of Broadcasters Annual Conference has come and gone. I hope you were fortunate to have attended NAB 2014 and one of the many associated conferences held with the annual NAB gathering. These associated conferences such as the PBS TechCon, the Public Radio Engineers Conference (PREC), and the SBE sponsored Ennes Workshop offered a variety of professional development opportunities and personal networking opportunities beyond the traditional NAB broadcast engineering conference program offerings.

Regardless of what events you were able to attend or exhibit halls you visited during the conference, you likely came away with the impression that the information technology (IT) emphasis in the broadcast plant infrastructure is well alive and here to stay. The radio folks have already seen this transformation take place and the TV and video industry transformation is well underway. The dominance of IT focused presentation topics, panel discussions, and technology exhibits was everywhere from IP based microwave links to video content storage and transcoding performed in the “cloud” IT environment.

As the SBE recognizes and celebrates 50 years of service to its membership, the industry is clearly seeing a major technology transformation. Technology transformations have occurred numerous times throughout broadcast engineering history, but the pace of the broadcast IT transformation will likely set new records. Along with the rapid adoption of the latest technology comes the need to develop the knowledge and skills of the broadcast engineer to keep pace. How does the entrenched and experienced broadcast engineer learn the latest IT infrastructure knowledge? How does the entrenched and experienced IT engineer learn the broadcast infrastructure knowledge? The real-time media aspect of the broadcast industry presents unique challenges to an IT infrastructure and thus the experienced IT engineer might be facing some new challenges. And of course the IT engineer will likely find the high-power RF world of broadcast totally foreign. Likewise, the experienced broadcast engineer who is totally comfortable with AES, SDI, and ASI signal flow might find these same signals in an IP environment somewhat challenging.

Regardless of your background, formal education or experience level, there is simply a lot to learn by everyone in the broadcast industry. Each individual is challenged with learning new or unfamiliar technology, while at the same time, keeping up with daily job demands. In many cases, accepted knowledge in one field can be treasured knowledge in another field. Even the basics can sometimes prove challenging to someone who is all of a sudden in un-familiar territory. The broadcast engineer might find a true understanding of IP network subnetting invaluable while routine knowledge “that everyone knows” to the IT engineer. At the same time the same IT engineer might be challenged with interfacing un-balanced and balanced audio that is “old hat” to the broadcast engineer. And 15 Kv plate voltage may simply be terrifying. The SBE faces its own challenges in providing professional development training to its members. What specific content does the broadcast professional need to keep up or get ahead today? How should the needed content be delivered? Who should deliver the desired content? These are many questions that your SBE Education Committee is faced with.

Can You Help?

You bet! Let the SBE Education Committee know your professional development needs. Tell us what specific content you need. Tell us how and when the content should be presented. Tell us who is best at providing the desired content. No matter how basic or how advanced, let us know your needs. By the way, you can look for some future webinars that focus on some of the basics from audio interfacing, to grounding, to practical surface mount technology repair techniques!

Are You Planning a State, Regional, or Local Chapter Sponsored Conference?

The SBE can bring quality professional development presentations to your event through the Technical Presenters Group program. This program provides quality content and professional presenters on a variety of topics from broadcast focused IP networking to FCC station inspections to your event.

In addition to the annual Ennes Workshop held during the NAB Show each year, the SBE sponsors several regional Ennes Workshops throughout the country. The schedule has openings for 2-3 more of these regional events in 2014. Contact Kristin Owens at the National SBE office for further information and to schedule a regional Ennes Workshop or to schedule a member of the Technical Presenters Group for your event.

Don’t Have Time to Attend On-Line Events During the Workday?

In addition to SBE University courses, the society offers numerous recorded webinars in addition to those delivered live. Webinars cover the diverse topics of interest to the broadcast engineer ranging from AM Directional Antenna Systems to understanding FCC regulations to numerous IP networking topics. These webinars are less intensive, are usually an hour or so in length, and available on your schedule. Several are free, based upon generous support of industry sponsors. Others are available to SBE members at a nominal cost.

Future Education Events:

- SBE RF Safety Course Webinar with Richard Strickland – June 24th
- SBE Advanced IP Networking Course for Broadcast Engineers with Wayne Pecena hosted by SBE Chapter 47 Los Angeles – June 27th
- SBE 2014 Leadership Development Course with Purdue Professor Rodney Vandeveer – August 12-14 – Atlanta, Ga.

For more information on any SBE Education program, contact Kristin Owens, kowens@sbe.org, Education Director at the national SBE office.

EDUCATION UPDATE
by Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
SBE Education Committee Chairman
w-pecena@tamu.edu

June 2014
A close friend of mine had a recent experience which had me thinking about one of the least mentioned values of certification. Think about this...

After a long week at work, it’s finally Friday and you’re looking forward to a weekend of fun and relaxation when your boss calls and asks if you have a few moments to chat. You arrive in his office and there waiting for you is your boss and the human resources officer for the station. Your service to the company is no longer needed. You’re being terminated!

You take a couple of days to gather your thoughts and to get over the shock of being let go. You start to prepare yourself for the task of securing a new position: looking over job listings; contacting your network of industry friends; and preparing your résumé or CV, just to name a few things.

How is your résumé going to differentiate you from the other people applying for the same position? What if the two finalists are you and another candidate with apparently equal credentials? What if you were certified by a nationally recognized body for your skillsets and the other candidate isn’t? It could be the factor that tips in your favor!

The time to be thinking about this scenario is now – before you have to confront it. It begins by going to the SBE website and navigating to the Certification section. There, you will find all the information you need to help you get started on your road to being a certified broadcast engineer. Whether you’re primarily a TV engineer or a radio engineer; whether you’re responsible for video systems or audio systems; whether you’re a radio board operator or a TV master control operator; or whether you’re the IT guru for the station or the transmitter geek, there is a certification level that matches your skillsets.

Being certificated is, of course, no guarantee of finding a new position. But having a certification and using those letters beside your name at the top of that résumé tells a recruiter, HR manager or hiring manager an awful lot about you before they even get to the rest of your experience.

It’s not hard to imagine the value certification has in the job hunt. It’s just one more arrow in your quiver of experience. Even if it only gets you past the first round of screening, it’s been valuable. And if it’s a determining factor, then it’s enormously valuable.

A word of caution to those who might be tempted to “fake” it and use the letters or state that they are certified when, in fact, they are not. People responsible for screening applications often call the SBE offices to verify stated certifications. If you were certified at one time but let that certification lapse, you are not certified and that is the answer that the screener will receive.

While exam periods are scheduled four times a year at the local chapters, accommodations can be made to sit for an exam at other times. If you don’t live near a chapter city, accommodations can be made to sit for an exam at a convenient location. Call the SBE office and speak with Megan Clappe. She and the national certification committee members are willing to assist. But you have to make that call.

Don’t wait until that day comes to decide that a certification would polish off that résumé nicely. You’ll be too busy trying to secure your next position to have time to study and prepare for an exam. Do it now!
New SBE Certification Achievements

LIFE CERTIFICATION
Certified Professional Broadcast Engineer® and certified senior broadcast engineers who have maintained SBE certification continuously for 20 years, are at least 59½ years old and are current members of SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment and are at least 59½ years old may be granted Life Certification if they so request. If the request is approved, the person will continue in his/her current level of certification for life.

Certified Senior Radio Engineer™ (CSRE®)
Richard Hood, Jr., Claymont, Del. – Chapter 18
Certified Broadcast Networking Technologist® (CBNT®)
Richard Hood, Jr., Claymont, Del. – Chapter 18

FEBRUARY EXAMS
Certified Senior Television Engineer™ (CSTE®)
Glenn Axelrod, Framingham, Mass. – Chapter 11
Lindsay Bold, Liberty, N.C. – Chapter 84

Certified Professional Broadcast Engineer® (CPBE®)
Michael LaClair, Watertown, Mass. – Chapter 11
Jerry May, Lexington, Kan. – Chapter 35

Certified Broadcast Networking Engineer® (CBNE®)
R. Brian Bernard, Philadelphia, Pa. – Chapter 89

Certified Broadcast Networking Technologist® (CBNT®)
Nicholas Gravis, Hays, Kan. – Chapter 59
Patric McFarlane, APO, AE – Chapter 54
Justin Vitoranto, Los Angeles, Calif. – Chapter 47
Godfrey Hogue, Port Bragg, N.C. – Chapter 11

SBE EXAMS HELD DURING THE NAB SHOW
Certified Broadcast Radio Engineer™ (CBRE®)
Brian Guinesson, Eagan, Minn. – Chapter 17
Derek Murphy, Altoona, Wis. – Chapter 24
M. A. Paulus, APO, AE – Chapter 37
Certified Broadcast Networking Engineer® (CBNE®)
Ronald Anderson, San Antonio, Texas – Chapter 69
Evangel Ancega, Abu Dhabi, Abu Dhabi – Chapter 11

James Glanz, Brooklyn, N.Y. – Chapter 15
Veraion Marzouka, San Marcos, Texas – Chapter 79
AM Directional Specialist™ (AMS™)
Ronald Olver, Williamstown, Ky. – Chapter 35
8-VSB Specialist™ (8-VSB®)
Emo Harvey, Jr., Harahan, La. – Chapter 72

Certified Broadcast Networking Technologist® (CBNT®)
Moses Edalini, Sr., El Segundo, Calif. – Chapter 47
Gregory Jamail, Las Vegas, Nev. – Chapter 128
Gregory Martin, Bowling Green, Ky. – Chapter 103
Brian Vita, Peabody, Mass. – Chapter 11

SPECIAL PROCTORED EXAMS
Certified Broadcast Networking Engineer® (CBNE®)
Gracyl Giardello, Laurel, Md. – Chapter 46

Certified Broadcast Engineer® (CBE®)
DINFOS
Nicholas Gravis, Hays, Kan. – Chapter 59
Patric McFarlane, APO, AE – Chapter 54
Justin Vitoranto, Los Angeles, Calif. – Chapter 47
Godfrey Hogue, Port Bragg, N.C. – Chapter 11

SBE CERTIFIED SCHOOL COURSE COMPLETION
Certified Broadcast Engineer® (CBE®)
Timmothy Bond, Indianapolis, Ind. – Chapter 25
Zachary Brakett, Granite, Calif. – Chapter 131
Ron Kurnetz, Altoona, PA – Chapter 110
Bill Tidevald, Cadillac, Mich. – Chapter 2
David Toon, Marquette Heights, Ill. – Chapter 49

CERTIFIED RADIO OPERATOR® (CRO®)
James Daugherty, III, Mount Vernon, Ohio
Albion College Radio
Yvonne Sponsler, Akron, Mich.
Taylor Sokoloski, Niles, Mich.
Pawasa City College
Catalina Akbar, Los Angeles, Calif.
Vian Austria, Upland, Calif.

Encompass Digital Media
Aaron Bloom, North Hollywood, Calif.
Peter Caravantes, Pico Rivera, Calif.
William Chavez, Burbank, Calif.
Tim Coyne, Culver City, Calif.

Certified Broadcast Radio Engineer™ (CBRE®)
Mark Lee, Boulder, Colo.
Justin Naranz, Santa Clara, Calif.
Todd Nurses, Los Angeles, Calif.
John Pooley, Norwood, Mass.

Robert Scott, Corpus Christi, Texas – Chapter 29
Certified Broadcast Networking Engineer® (CBNE®)
Bret Quinlin, Henderson, Nv. – Chapter 128
Timothy Bond, Indianapolis, Ind. – Chapter 25

CERTIFIED TELEVISION OPERATOR® (CTO®)
Mark Lee, Boulder, Colo.
Justin Naranz, Santa Clara, Calif.
Todd Nurses, Los Angeles, Calif.
John Pooley, Norwood, Mass.

Robert Scott, Corpus Christi, Texas – Chapter 29
Certified Broadcast Networking Engineer® (CBNE®)
Ronnie Barnes, APO, AE – Chapter 132
Timothy Bond, Indianapolis, Ind. – Chapter 25

JUBILIEE PROJECT
Certified Professional Broadcast Engineer® (CPBE®)
Michael LaClair, Watertown, Mass. – Chapter 11
Jerry May, Lexington, Kan. – Chapter 35

Certified Professional Broadcast Engineer® (CPBE®)
Michael LaClair, Watertown, Mass. – Chapter 11
Jerry May, Lexington, Kan. – Chapter 35

Certified Broadcast Radio Engineer™ (CBRE®)
Mark Saia, Ithaca, N.Y. – Chapter 140
Peter Stohrer, Concord, N.H. – Chapter 110
Steve Westbroek, Simms, Ga. – Chapter 5

Certified Broadcast Television Engineer™ (CBTE®)
Kenny Ebcoc, Honolulu, Hawaii – Chapter 63
Cary Martin, Jacksonville, Fla. – Chapter 7

Robert Scott, Corpus Christi, Texas – Chapter 29
Certified Broadcast Networking Engineer® (CBNE®)
Ronnie Barnes, APO, AE – Chapter 132
Timothy Bond, Indianapolis, Ind. – Chapter 25

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 senior requirement.

Certified Broadcast Radio Television Audio Video Engineer™ (CBTAVE™)
Llew Lawrence, Jr., Destinshan, La. – Chapter 72
Certified Broadcast Television Operator® (CTO®)
Victoria Rhymer, Aurora, Colo.
All Simmons, Columbus, Ga.
Erie Williams, Spring Valley, Calif.
Certified Broadcast Radio Operator® (CRO®)
John Jordan, Rockey Mount, N.C. – Chapter 93
Michael McCormick, Ogdala, Neb. – Chapter 87

June 2014
Ralph Hogan (l), chairman of the national SBE Certification Committee, recognizes members for years of service. To Ralph’s left, chapter certification chairmen, Henry Kaul, Chapter 63, Hawaii and Gary Stigall, Chapter 36, San Diego; Terry Baun, national Certification Committee member; SBE President Joe Snelson.

Members of SBE international affiliate, AMITRA, the Association of Broadcast Engineers and Technicians of Mexico, attended the membership meeting and reception. AMITRA President, Jesus Canela is second from left.

Victoria Battison, daughter of SBE founder, John Battison, attended the meeting and reception.

A 15 ft. long timeline illustrated key events in the history of the SBE.

Members enjoy the food at the reception.

A large crowd attended the 20th annual SBE/Ennes Program; part of the NAB Broadcast Engineering Conference.

Jim Wulliman signs the member number timeline.
SBE staff, (l-r) Megan Clappe, Debbie Hennessey, Kristin Owens and John Poray at the SBE exhibit booth.

Old friends meeting up at the reception include (l-r) Megan Clappe, Ralph Hogan, Terry Baun, Linda Baun, Jim Wulliman and Doug Garlinger.

President Joe Snelson presides at the membership meeting.

Addressing the crowd at the SBE Membership Meeting is Eric McCulley of sponsor, Vislink Broadcast.

Members Dan Ryson, Alan Jurison and Dennis Wallace enjoy the reception.

Sponsors of the SBE 50th Anniversary Reception

President Snelson assists Karen Johnson, vice president of SBE daily booth sponsor, Ka You Systems, as she draws the prize winning number.
First Informer Statutes - Spread the Word

Sometimes it is procedurally difficult to do good things. I have heard periodically that Amateur Radio operators often have a difficult time volunteering their valuable communications skills in disaster relief and emergency communications because they are restricted in their access to those disaster areas where communications are disrupted. They are not First Responders, though they often provide communications for First Responders in disaster areas. For example, after the 9/11 attacks in New York, the only radio amateur volunteers who were given access to the area were those who had Red Cross credentials.

Broadcasters are often in the same boat. They serve a very important function in disaster relief by informing the public about conditions in and near the disaster area. But broadcasters are not First Responders either, although they provide First Responders access to large populations at once for information dissemination. So how do broadcasters get access to the disaster area to do their job and inform the public? By state statute, that’s how.

There are a handful of states that have enacted so-called “First Informer” statutes. These typically provide that broadcasters (typically including radio, television and cable systems) can, in collaboration with the state emergency management agency and/or the state broadcasters’ association, establish a program for training and certifying broadcast engineers and technical personnel as first informer broadcasters. Once certified, the statutes provide that state and local governmental agencies must allow a first informer broadcaster access to an area affected by an emergency or disaster for the purpose of restoring, repairing, or resupplying any facility or equipment critical to the ability of a broadcaster to acquire, produce, and transmit essential emergency or disaster-related public information programming, including, without limitation, repairing and maintaining transmitters and generators, and transporting fuel for generators. The training relates to personal safety in a disaster area and the mechanics of equipment repair and restoration of media communications facilities following disasters.

Typically, to become qualified as a “First Informer Broadcaster,” technical personnel are required to take on-line courses. These courses are part of the NIMS (National Incident Management System) training, and they are offered free. Each course takes approximately 3 hours, so it requires some commitment. Those who complete the NIMS training receive a certificate after each course completed, and these courses qualify for .3 IACET CEU’s, presumably contributing to SBE recertification. For details, visit: http://training.fema.gov/IS/nims.aspx.

States that have enacted these statutes so far include Wisconsin (2006), Nevada (2009), Illinois (2013), Arizona (4/15/2014), Virginia (4/14/14), and most recently, Oklahoma (4/23/14). Bills are pending in Georgia, Missouri and West Virginia. As you can see, the concept is catching on fast.

The scope of things that a certified first informer can do varies from state to state. Georgia’s pending Bill is quite detailed, making it clear that the real goal is to allow broadcast stations inside the disaster area to be put back on the air and kept on the air to provide information on an ongoing basis. If the Bill in Georgia (SB381) is signed by the Governor (which is likely by the time you read this) it would permit first informer broadcasters to:

(A) Have access to areas affected by an emergency for the purpose of restoring, repairing, or resupplying any facility or equipment critical to the ability of a broadcaster to acquire, produce, or transmit emergency related programming, including but not limited to repairing and maintaining transmitters and generators and transporting fuel for generators;

(B) Have access to the distribution of fuel, food, water, supplies, equipment, and any other materials necessary for maintaining or producing a broadcast or broadcasting signal; and

(C) Not have vehicles, fuel, food, water, and any other materials seized or condemned that are essential for maintaining or producing a broadcast or broadcasting signal.

This is a very good opportunity for broadcast engineers in emergency preparedness and it provides, at long last, a good opportunity for recognition of radio and television broadcasting as an essential component of emergency response planning. An effort in the recent past to have broadcasters recognized as “First Responders” was conceptually flawed. Broadcasters are simply not First Responders; that term is clearly understood to be limited to public safety officials. Bravo, however, to whoever first coined the term “First Informers”. That is exactly what broadcasters are and what they do.
Jubilee Project Demonstrated the Value of SBE Certification

On April 30, the SBE completed a special one-year window of opportunity for those who had allowed their SBE certifications to lapse. It was a chance to reinstate their certifications without taking exams. Called the Jubilee Program, in recognition of the SBE's 50th anniversary, the program was limited to certifications that had lapsed since 1999, but any of the SBE certification levels were eligible to be reinstated.

The response to the program was strong. As of this writing, approximately 120 individual certifications had been applied for during the twelve months of the program. Circumstances varied among those who took advantage of the opportunity. Some had left broadcasting and allowed their certifications to lapse. Now they were back and wanted to get certified again. For many, time just got the best of them and they missed their recertification deadline. There were some who questioned the value of their certification when it came time to recertify and chose not to, but realized after it was gone just how valuable it was.

One chapter recently publically demonstrated the importance of SBE certification to its local members by instituting a policy that provides financial reimbursement to those who successfully earn their first certification. Chapter 26 in Chicago, chaired by Gordon Carter, CPBE, DRB, CBNT, approved the program, which uses chapter funds to rebate 100% of the certification fee for a member's first certification. Carter said, “We need to encourage young and experienced members alike to seek certification by eliminating any economic roadblocks the member may be facing.” Long time Chapter 26 member and past chairman, Mike McCarthy, CSRE, CEA, was a proponent of the new chapter policy and said the timing with the society’s 50th anniversary, “…makes this time the perfect opportunity to further certification accessibility.”

The value of SBE certification can be measured in several ways and that determination is unique to each individual. It varies depending on the stage of one’s career, the level of interest an individual has in career advancement, and the level of importance current or potential employers place on professional certification. The point to remember is that SBE certification remains the only industry measurement of broadcast engineering knowledge and experience. There is no FCC license or other formal measurement tool available. While some employers require SBE certification, many others find it preferable when hiring. Holding SBE certification demonstrates to others your commitment as a professional in the field of broadcast engineering; a commitment that includes learning new technology and how to apply it to benefit your employer or clients. If you have not yet pursued SBE certification, why not make this 50th year of the SBE, the year you make the commitment.

This column would not be complete without acknowledging the many members who attended the spring membership meeting on April 8 during the NAB Show and the 50th anniversary reception that followed. One of those was SBE past president (1973-1975), Jim Wulliman, CPBE and his wife Ginny. Jim, who is referred to as the father of the SBE Certification program, has long been retired and lives in southern Arizona. They made the trip to the NAB Show, their first in more than 15 years, specifically to attend the SBE 50th anniversary activities. It was great to see you, Jim.

One of the 50th anniversary celebratory features was a 12 minute video shown during the membership meeting, SBE – 50 Years in the Making. Many people have asked if the video would be made available to members. A copy on DVD has been mailed to each chapter chairman and we encourage each chapter to show it at a future meeting. We’ll also soon be posting it to the SBE YouTube channel.

We express our thanks to the volunteers and national staff who planned and presented the anniversary events, and to our sponsors; ten of our SBE Sustaining Member companies that provided financial support to make the events and the SBE exhibit booth at the NAB Show possible. You’ll find their company logos on the two-page NAB Show photo spread in this issue of The Signal.

And we’re not done celebrating yet! The 50th year celebration continues and will culminate at the 50th SBE National Meeting, October 7-8 in Verona, N.Y., held in conjunction with the 42nd Annual SBE Chapter 22 Broadcast & Technology Expo. If you’re in the area, I hope you will attend. For those who can’t be there, plan to tune in to the live one-hour webcast of the SBE Annual Membership Meeting the afternoon of October 8.
Sunspots and the Terrestrial Broadcast Engineer

I have always been awestruck by the Northern Lights (Aurora Borealis) and wondered what caused it. It took me over 60 years to find out that sunspots were a part of the process.

Heinrich Schwabe, a German pharmacist and amateur astronomer began observing the dark spots visible on the sun in 1826. In 1843 he noticed that the number of spots varied according to an 11 year cycle. The maximum occurred on the 11th year. In 1862, Edward Sabine of England found that magnetic storms followed a similar pattern.

Another amateur astronomer in England, Richard Carrington, documented observations between 1853 and 1863. Carrington was observing a group of sunspots in September, 1859 when suddenly, “two patches of intensely bright and white light broke out.” The patches brightened rapidly and then decayed again. His observation was confirmed, independently, by another English astronomer, Richard Hodgson.

Carrington had seen a solar flare. About 17 hours later, a great magnetic storm erupted with an aurora seen as far south as Cuba. This so called “Carrington Event” was the strongest geomagnetic storm ever recorded and induced such high voltages into telegraph wires and circuits that operators received shocks, telegraph keys melted and circuits operated with batteries disconnected. Astronomers and astrophysicists warn us that if a storm of that proportion hit the earth today, much if not all of its electrical infrastructure could be damaged or destroyed.

Sunspots appear as dark blotches on the sun and are caused by the appearance of cooler (3000 degrees Celsius) areas amidst the rolling gases on the surface (6000 degrees C). These areas are cooler because much of their energy is tied up in intense magnetic fields that are 1000 times stronger than the magnetic fields of the earth.

Solar flares appear as explosive bright spots on the surface of the sun (as experienced by Carrington and Hodgson in 1859). They occur when magnetic energy built up in the solar atmosphere near a sunspot is suddenly released in a burst equivalent to ten million solar atmosphere. It is invisible, except during a total eclipse. When these fields are closed, often above sunspot groups, the confined solar atmosphere can suddenly and violently release bubbles of gas and magnetic fields called coronal mass ejections (CME’s). A large CME can be as large as the sun and can contain 10 billion tons of matter. CME’s are sometimes associated with solar flares but usually occur independently. A CME can induce huge amounts of voltage into our earth’s magnetic shield and can damage and destroy power grids on Earth. When a CME collides with the solar wind, the shock wave created can drive supercharged particles into the Northern and Southern Hemispheres and produce an aurora.

We live in a world that has become so dependent on electrical and electronic systems that in the event of a huge geomagnetic storm that destroys our power grid, we may have to return to the ‘horse and buggy’ days or worse. We wouldn’t be able to get a drink of water or flush the toilet, or even drive a motor vehicle without electricity. When a transformer feeding the power grid in the province of Quebec was hit by a geomagnetic storm in 1989, the excessive induced current caused it to melt and the whole province lost electrical power for many days.

The best advice to give to broadcast engineers is to be prepared. You should plan for the worst possible conditions that could affect transmissions, programming, staffing, spare parts, emergency medical and more.

FM and TV stations shouldn’t lose their carriers in a space weather attack unless the power grid goes down. They may lose their programming source if it is dependent on satellites. AM stations, especially those with directional arrays, may have some pattern problems if the ionosphere is upset.

The morning of this writing, a large solar flare burst out of a group of sunspots. It brought with it a strong burst of X-ray and sprayed the ionosphere with excess electrons, protons and ions. HF (3-30 MHz) radio blackouts occurred on the side of the Earth facing the sun. I was able to observe their website to find out what was going on.

The National Oceanic and Atmospheric Administration (NOAA) operates the Space Weather Prediction Center (SWPC) to provide the nation and the world with the information needed to predict the outcomes of a wide range of solar-earth activities. NOAA’s task is to monitor the types and amounts of energy being radiated by the sun and what interactions with the earth are taking place. SWPC provides three on-line reports which are important to users who need to monitor existing space weather conditions to determine if they are normal, abnormal but safe, or abnormal but dangerous. These are geomagnetic storms, solar radiation storms and radio blackouts. Depending on intensities, it is possible for more than one to occur simultaneously. Several websites can help you become knowledgeable about space weather. Using the three sites together, one can monitor and anticipate space weather that can affect broadcast transmissions.

Space weather scales can be found at www.swpc.noaa.gov/NOAAAscales/. NOAA introduced these as a way to communicate to the general public the current and future space weather conditions and their possible effects on people and systems.


Donald E. Kolbert, CPBE lives in Stewartville, Minn. During his 58 year career, Kolbert has worked, instructed and authored in the field of electronics and computers. He retired as Chief Engineer at Minnesota Public Radio, Rochester, Minn. in 2000. He is a member of SBE Chapter 112, La Crosse, Wis. 

The Sun exhibits two events at once on Jan. 28, 2011. A filament on the left side became unstable and erupted, while an M-1 flare (mid-sized) and a coronal mass ejection on the right blasted into space.
Our member In the Circle this issue is perhaps one of the more unique we’ve ever profiled. Ling Ling Sun is Chief Engineer at WOSU TV, the public broadcast station in Columbus, Ohio located at the Ohio State University. She grew up in Harbin, China and always had curiosities about technology but at a time when a cultural revolution was being quashed. The push for industry and new technology only had a resurgence when she was ready to go to college. Sun knew the concept of television, but had never watched its programming until she visited a relative in Beijing who owned a television. She was 18 years old at the time. She says, “Television was so new then, it was so Hi-Tech when the time came: I was ready to go to college. I picked Broadcast Institute where I found there was actually a college teaching broadcast.”

Sun earned a degree in Electronics Engineering from Beijing Broadcast Institute. She returned to Harbin and became deputy chief of the transmitter division of the provincial television station when color broadcasts had just started in the area.

After moving in the 1990’s to the United States, when her husband began studying for a PhD at Washington State University, she landed a broadcast technician job at the university’s station, KWSU. A television broadcast engineer there, DeeAna Bell, taught Sun how to overhaul a Sony 3/4” tape machine. That led her to begin to develop her skills in master control and production fields. Sun says, “I have such warm feeling when thinking about her. She opened a door for me when I was looking for it. I hope many of us can do the same to other younger engineers to help them grow.”

Sun joined the SBE in 2012 and is a member of Chapter 52 in Columbus. She says a rewarding aspect of her membership is attending local chapter events and talking with her peers. She enjoys finding out someone there has a solution for a technical problem that she’s seeking or vice versa. Sun volunteers as a member of the national SBE Education Committee and says that gives her a sense of responsibility that her work will positively impact the younger generation of engineers in our field.

She says most people don’t know that she started her career as an RF engineer, maintaining microwaves and then TV transmitters. She says, “I still remember it took me a while to learn how to correctly apply my strength to pull out BIG transmitter vacuum tube not bending its contact finger stock.” Sun says her hobby is learning the language, American culture and technology. Asked what she likes most about her job, she said, “What I do makes a difference. The difference has a direct impact to the community I serve, which gives me a purpose to continue to do my best.”

CQ Answer from page 6
C. 16 bytes
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.

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Have you recently made an employment change or received a promotion? Let your fellow SBE members know about it. Send your news to jporay@sbe.org.
A snapshot in time

In the early 1990s, the SBE entered into its first sharing agreements with broadcast engineering associations in other countries. Here, (from left) Kim Kyung Ho, President of the Korean Broadcast Engineers and Technicians Association (KOBETA) in Seoul, Richard Farquhar, SBE President and Chuck Kelly (far right), SBE International Committee Chairman, gather after the two presidents had signed an agreement to exchange information and cooperate with each other on matters of like interest. This took place on October 3, 1991 at the George R. Brown Convention Center, during that year’s SBE National Convention in Houston, Texas. (The man second from right is unidentified.)