

Snelson elected to second term as SBE president

The membership of the SBE has elected Joseph Snelson, CPBE, 8-VSB to a second term as national president. He will begin his one-year term on October 8. As president, Snelson leads the organization and presides over its national board of directors that determines policy for the 5,000+ member professional society. Snelson is vice president of engineering at Meredith Corp., and resides in the Las Vegas, Nev. area. He is a member of SBE Chapter 128, in Las Vegas.

Elected vice president for a second term is Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT of Greenville, S.C. Massey has chaired the SBE Sustaining Member Committee during the past year and is chairman of SBE Chapter 86, encompassing the Greenville and Spartanburg, S.C. and Asheville, N.C. areas. He is corporate regional engineer southeast and director of engineering for Entercom Greenville, LLC.

Elected to a fourth one-year term as secretary is Jim Leifer, CPBE, of Boynton Beach, Fla. Leifer is a member of Chapter 53, South Florida and

has chaired the SBE By-laws Committee the past year. He is director of engineering and IT for iHeart Media South Florida.

Elected treasurer for a second term is Andrea Cummis, CBT, CTO of Roseland, N.J. Cummis is a member of Chapter 15 in New York City and this past year served as chair of the SBE Publications Committee. Cummis is a broadcast consultant and owner of AC Video Solutions.

Elected to two-year terms as directors on the board are:

- **Tim Anderson, CPBE, DRB, CBNE**, Chief Radio Product Architect, GatesAir, Mason, Ohio
- **Benjamin Brinitzer, CPBE, AMD**, Regional VP Engineering, iHeart Media & Entertainment, Charlotte, N.C.
- **Gary Kline, CBT, CBNT**, Senior VP Corporate Engineering & IT, Cumulus Media, Atlanta, Ga.



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Wrapping Up the 50th

by Joe Snelson, CPBE, 8-VSB

By the time you are reading this the SBE National Meeting will either have just occurred, or just about to, in Verona, New York, held concurrently with the SBE Chapter 22 Broadcast & Technology Expo.

This particular meeting is special as it wraps up our year of celebrating the 50th anniversary of the SBE. Reflecting back, we kicked-off our celebration at the national meeting held a year ago in Indianapolis. As part of the kick-off, we announced the SBE Certification Jubilee program where we gave an opportunity for those who had let their SBE certification lapse to renew it without taking an exam, provided they met a few qualification requirements.

Our celebration continued in April of this year, during the NAB Show and Broadcast Engineering

Conference. It was a great success with food, prizes, the signing of a timeline, the airing of a 50th anniversary video and a commemorative poker chip to remember the event by. Who knows, that poker chip could be a valuable item when the



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LETTER FROM THE PRESIDENT

by Joe Snelson, CPBE, 8-VSB
SBE President
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recipient, or an heir, attends SBE's Centennial Anniversary in 2064. We had a few poker chips left over from our April celebration that will be given away during our national meeting.

As the SBE now enters its 51st year, we look forward to further growth and advancement in the education of our members through various means, ranging from publications, workshops, live webinars and on-line training. While it is always interesting to look at the past and talk about things that have been accomplished, we now can use these accomplishments as a foundation for the future. The SBE looks forward to a rewarding future in serving our members and playing an integral part in their career development and advancement.

I want to take a moment and share with those of you who are unable to attend either the national meeting or awards dinner a few highlights scheduled for our national meeting. First, we are honored to have Sam Matheny, the new NAB CTO & Executive Vice President, as our guest speaker at this year's awards dinner. This will be one of the first opportunities for Sam to speak publicly in his new role.

As you know from previous articles, our strategic plan included a branding committee to explore what the SBE is and how we should market ourselves. One of the outcomes of many months of hard work of a committee, chaired by former SBE President, Ed Miller, was that of a tag line. Many organizations use these to give someone unfamiliar with an organization

a high level exposure to who an organization represents and what they are about. This was a challenge for the marketing committee as the role of the broadcast engineer has changed, as well as technology. The challenge was coming up with a tag line that was descriptive yet not too lengthy. During the Annual Membership Meeting (streamed live at 3 pm ET, Oct. 8) we will proudly present the SBE's new tag line. It will appear with the SBE logo on banners, signs, the website and letterhead in the future. I wish to personally thank Ed and his committee for their hard work in developing this new tag line to market the SBE.

Over the last several years we have stepped up our awards program. Many times the hard work and contributions of our members goes unnoticed. While I know we would all rather have more pay than recognition, there is still a part in all of us that likes to be appreciated. We are now doing that on both the national and local levels. I always enjoy hearing about the accomplishments of our members and their contributions to both the broadcast and media industry and to the communities where they serve. You have already heard about some of our award winners in the last edition of The Signal and you will read more about our award recipients in this one.

Our certification program continues to grow in both certified members and its recognition as being a credible program. For example, you can see the number of educational institutions that have requested to be granted SBE Certified School status by visiting the SBE website. These certified schools offer their students current and applicable courses in broadcast and media technology. Their courses are periodically

reviewed by the SBE National Certification Committee to ensure they offer a well-rounded curriculum covering the diverse technology used in broadcast and media.

As I close out my column in this issue, I want to extend my thanks and appreciation to Scott Mason, who will have completed his term on the SBE board. Scott has headed up our EAS Education Committee and has done a fine job, as well as providing input on the SBE comments that SBE recently filed regarding EAS with the FCC. Thank you, Scott.

During the national meeting, we will welcome a couple of first-time members to the SBE board, Benjamin Brinitzer, CPBE, AMD - Regional VP Engineering, iHeart Media & Entertainment, Charlotte, N.C., and Eric Schecter, CBRE; Director of Engineering, CBS Radio/Phoenix, Scottsdale, Ariz. I welcome these new team members and look forward to working with them, as well as the other board members and officers I have worked with over this past year. I will soon announce the appointment of officers and directors to chair the various SBE committees.

I also want to take a moment and extend my appreciation to the candidates that ran in this year's election, though not elected. I appreciate their willingness to run for office and serve our society.

I know all of us on the SBE board and national staff look forward to another successful year in serving our members. Please don't hesitate to let us know how we can be of assistance to you and if you have thoughts and ideas that you would like us to consider.👍

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2014 Election Board of Tellers



Our thanks to members of Chapter 25 in Indianapolis who served on the Board of Tellers for this year's election. (l-r) Dave Fort, Bill Cherry, Doug Garlinger, CPBE, 8-VSB, CBNT, Dale Smiley, CPBE Tom Weber, CPBE, CBNT and Al Grossniklaus, CBNT

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Three awarded Ennes Trust scholarships

The Ennes Educational Foundation Trust, the non-profit, charitable arm of the Society of Broadcast Engineers, has awarded three scholarships to broadcast engineering and technology students for 2014.

Clifford White, of Tyler, Texas, is receiving the Harold E. Ennes Scholarship. White was born and raised near Tyler, Texas. His family has operated a small TV downlink station as long as he can remember. When he was fourteen years old, he decided to become an amateur radio operator, testing all the way to the Extra Class license within two months. He is now in his second term as a board member of the Tyler Amateur Radio Club. Being naturally inclined toward engineering, he always knew he wanted to be an engineer of one flavor or another. The ample exposure from both amateur radio, his work with his family's small station, and friends at other broadcast stations, he made the choice of electrical engineering an easy one. He is enrolled at LeTourneau University in Longview, Texas to study just that.

Kate Stockslager is receiving the Youth Scholarship. Stockslager, of Camden, Del., earned her Technical Diploma in the field of Radio/TV Production and Broadcasting from Polytech High School in June. While at Polytech, she became an Adobe Certified Associate in Video Communication using Adobe Premiere Pro CS6, and her senior technical exhibition focused on the mobilization of media and included interviews recorded with National Public Radio, Verizon, and Best Buy. In addition to hobbies that include painting and photography, Katie spent many volunteer hours creating and editing videos for various school departments as well as outside businesses.

After placing first in the state championship earlier this year, Katie and her teammate moved on to the national Skills USA conference in Kansas City, competing in Audio/Radio Production. She is currently a freshman attending Salisbury University in



Cliff White



Kate Stockslager



Kevin White

Maryland, working toward her bachelor's degree and ultimately a career in video or audio production or broadcasting.

The recipient of the John H. Battison SBE Founder's Scholarship is Kevin White. White, from Lakewood, Wash., is a student of Bates Technical College in Tacoma. While there, he has become the vice-president of the student government, gained his CBT certification and FCC amateur radio general class license, and spends his spare time at the bench troubleshooting and repairing anything in sight. This past summer, White looked to gain more knowledge and real life, hands-on experiences at KBTC-TV.

The Ennes Educational Trust was originally initiated by SBE Chapter 25 of Indianapolis, Ind., in 1980, in memory of Harold E. Ennes, author of many textbooks for broadcast and broadcast-related communications training and a member of the Indianapolis chapter. Ennes was a member of the SBE National Certification Committee and made many contributions to the early development of the certification Program.

Those wishing to make a contribution to the scholarship fund may send donations to: Ennes Educational Foundation Trust, 9102 N. Meridian Street, Suite 150, Indianapolis, Ind., 46260. Checks should be made payable to Ennes Educational Foundation Trust, with the specific scholarship name written on the memo line. The Ennes Educational Foundation Trust is a 501(c)3 charitable organization. Contributions by most individuals are tax deductible. More information on the Ennes

Educational Foundation Trust can be found at the education section of the SBE website sbe.org.

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Looking Back Over 50 Years

Former president recalls his days at the helm of the SBE

by Rick Farquhar, CPBE

I was pleased and honored when John Poray, during this 50th anniversary year, asked me to share my thoughts about the Society during my years of service.

When I was elected president, my wife Nancy asked me if I was sure I wanted to do this. Those were turbulent times in SBE, and there would be a lot of pressure on, not just me, but the other volunteers as well.

Many of you probably remember Nancy, as she accompanied me on all of our SBE activities. For 52 years she was by my side, giving her thoughts, listening and providing additional input and guiding me during my terms. Nancy was not a member of the Society but she gave her all to the SBE. I remember we had a meeting in Chicago and she had just had surgery. Wrapped in pillows, she made the trip and went about her activities and just kept smiling.

When I assumed the presidency, I quickly found there were some issues that had to be resolved; the SBE conventions, member services, certification, Ennes educational programs and financial issues and they all required immediate attention. I was very lucky during my term that I had several volunteers that had very definite ideas on how to resolve the issues. I will admit, that at times, these volunteers and I were at odds, but it has all worked out, and those same volunteers have gone on to serve the Society as officers and members of the board. It was a great training ground for all of us.

I also knew at this time we needed a professional manager on board, who should be located at the SBE headquarters in Indianapolis. In October 1992, I brought on John Poray as Executive Director. He had many of the qualifications I was looking for and, just as important, he was willing to work for what the SBE could pay. Of all the decisions I made while president, this would rank near the top. I remember when John and I first worked together. It was in San Antonio in the fall of 1992. Prior to this, Nancy used to keep my notes. I was great at making decisions but not so good at keeping track on paper. Well, John inherited that responsibility. I can still remember John taking his notebook and writing the entire time and when we had our meetings, he was right there with all the details. I have received a lot of credit for accomplishments during my term, but you can see that I had the best support team in the world. How could I fail!

During my term, I knew we had to increase our communications with our members. The "Ham Radio of the Air" had been around

but was not very active. With Hal Hostetler and a couple of others, myself included, we reactivated the "Chapter of the Air." It was a chance for members to talk with the president, as well as a couple of board members that were



Rick Farquhar and Bandit at White Sands, N.M.

hams. This is still an active net today with Hal at the controls.

In 1989, the "President's Newsletter" was used to communicate with the members. The first reactivated issue of "The Signal" was started in 1992. This was just after John Poray came on board. I knew then the decision for professional SBE management was the correct one. We had someone that could work with the volunteers and implement the programs. Glad you are on board John, you made a difference.

With the guidance of Chuck Kelly, the SBE participated and encouraged membership from around the world through affiliations with other like-minded associations. The first two were AMITRA of Mexico and KOBETA of South Korea. I was privileged to represent the SBE in five trips to Mexico to address AMITRA, Mexico's premier broadcast engineering group. In 1991, I represented SBE at the KOBETA convention in Seoul, Korea. Since I do not speak Spanish or Korean, both groups provided interpreters to relay my thoughts into their language. It worked great.

Prior to 1994, the SBE had its own conventions, of which, the last few were not that successful. I knew we had to make some changes. From 1991 to 1993, talks with NAB concerning a joint conference came into being. The result was World Media Expo, which included the SMPTE conference, the NAB Radio Show and the RTNDA conference.

An agreement by the four organizations was signed in August, 1993, but for years prior, we had been working with NAB to forge an agreement that would be beneficial to both organizations. Part of the agreement would

be the Ennes Workshops (SBE Day) at the NAB convention. The first "SBE Day" was in the spring of 1991, which is another event I am extremely proud to have been a part. This was a great opportunity for SBE members as NAB membership discounted fees would apply. I had the pleasure of moderating the first several (SBE Day) Ennes Educational Workshops held during the NAB Spring Convention. The agreements reached subsequently have served both organizations well. The individuals that we worked with are still at NAB; Lynn Claudy, John Marino, Kelly Williams and Janet Elliott. A great group of professionals and it was my privilege to work with them all.

As president, I always wanted to have the Ennes Workshops continue to be presented around the country. Jim Wulliman moderated the first workshop for Chapter 33 in Cincinnati in 1989. The next workshop was in 1993 in Birmingham, Ala., which I moderated and was hosted by Chapter 68. From that point on, until I retired, Nancy and I did several workshops every year. It was a blast, and most importantly, we had the opportunity to meet SBE members. Some of which we talked into volunteering with the SBE. A few of those are still doing work with the Society.

I remember the troubled times, but I had some great moments with SBE. During that era the officers and board members sat with the membership during the annual Awards Dinner. A member looked at me and said, "Rick, I want to thank you, on behalf of SBE, for not giving up. Thank You." Those simple words were one of the nicest things I remember from my years. I have a lot of great things I remember about the SBE, but that phrase tops the list.

Thank you for letting me serve.
Have a great week.

Richard Farquhar, CPBE served the SBE as national president from 1991 to 1993. He is retired from a long career in broadcast engineering and is a Life and Fellow member of the SBE. He also served for many years on the national SBE Certification Committee. Farquhar is from Canal Winchester, Ohio but is now a full-time RVer, with his official "home" address in Box Elder, South Dakota.



EDUCATION UPDATE

by Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE
SBE Education Committee Chairman
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Have You Attended an Ennes Workshop?

The Ennes Workshop is one of the premier events of the National Association of Broadcasters annual conference each year in Las Vegas. Produced by the Society of Broadcast Engineers in cooperation with NAB, this Saturday workshop offers a full day of timely technology tutorials and presentations to hundreds of broadcast engineers over the years.

But, what if you have been unable to attend the NAB Annual Conventions? Ennes Workshops are still available to you at regional locations across the US throughout the year. Since 2010 over eight hundred Broadcast Engineers have attended regional Ennes Workshops held in locations such as El Paso, San Diego, Dallas, Orlando, Miami, Sacramento, New York, Pittsburgh, Hartford, and Cleveland. These regional events bring the same full-day of technology focused tutorials and presentations to the broadcast engineer. Topics cover the gamut of technology found in the broadcast plant ranging from FCC Hot Topics, to Transport Stream Solutions and Advances, to IP Networking, to Lightning Protection, to Cellular Technology for ENG, to Real-World AoIP Problem-Solving, to Spurs: Your Fault or Not.

What is An Ennes Workshop?

The Ennes Workshops were created in 1991 through the Ennes Educational Foundation Trust in an effort to bring affordable education to members locally. The Ennes Educational Foundation Trust, through its Education Foundation Committee, offers periodic workshops and seminars around the United States. Programs are typically one day in length (app. 9 am - 5 pm) and are very affordable. These programs feature multiple topics and speakers that provide television and radio engineers with the latest information in broadcast and media technology.

The Harold Ennes Scholarship Fund Trust was initiated by Indianapolis Chapter 25 in 1980 in memory of Harold E. Ennes, author of many textbooks for broadcast and broadcast-related communications training and a member of the Indianapolis chapter. Ennes was a member of SBE's national Certification Committee and made many contributions to the early development of the certification program.

To encourage greater growth, the scholarship

trust was transferred by Chapter 25 to the SBE national organization to administer in 1981. Over the years, the purposes of the trust were expanded. In addition to granting scholarships, the trust now is involved with the funding and presentation of broadcast engineering-related educational programs, seminars and workshops. It also helps to underwrite costs associated with publishing technical books and manuals.

The name of the Trust was changed in 1995 to the "Harold Ennes Educational Foundation Trust" to fully embrace its expanded role.

Who is Harold Ennes?

Harold E. Ennes was likely the most prolific broadcast engineering author of all times. His numerous texts published in the 60's and 70's became the knowledge foundation for many an aspiring broadcast engineer as well as a trusted reference for the experienced engineer. Titles such as the Broadcast Engineering Notebook, Television Broadcasting Camera Chains, Workshop in Solid State, and AM-FM Broadcasting Equipment and Operations are just a few of the titles found on the shelves of many broadcast engineers.



Bring an Ennes Workshop to Your Regional Broadcast Engineering Event


Regional Ennes Workshops are often held in conjunction with a state broadcast engineering conference or simply sponsored by a local SBE chapter.

The schedule has at least one open date in 2014 and 2-3 openings for this regional event in 2015. Contact Kristin Owens at the National

SBE office for further information and to schedule a regional Ennes Workshop at your next SBE event.

Learning is a continuous process for the technology professional and certainly the broadcast engineer. Remember, continuous learning is a key trait of the successful technology professional!

SBE Leadership Workshop – Atlanta Recap

The 2014 SBE Leadership Development Course was again held in Atlanta this past summer. This highly interactive and unique professional development program focused upon preparing the broadcast engineer for leadership and management roles in the industry. Purdue University Professor, Rodney Vandever, inspired, motivated, and shared his people skills with 25 engineers from across the country. Brian Olinger, of WTOP-FM, Washington, D.C. had this to say; "Rodney is a great teacher, facilitator and discussion leader. He has a deep knowledge of the subject and is well-prepared. Truly an outstanding seminar." The highly interactive course challenges you to refine your leadership skills as you better understand and improve how you interact with others. Subjects include understanding the dynamics of leadership, a leadership behavioral style assessment, communications, effective motivation techniques, building winning teams and much more. Consider adding the 2015 SBE Leadership Development Course to your future professional development plans. 

Certification Question

Answer on page 16



Statistically, within how many dB of the average power at 99.9% of DTV peak power excursions?

- a. 3.0 dB
- b. 6.3 dB
- c. 10.6 dB
- d. 11.3 dB

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

You may also reach Kristin by phone at (317) 846-9000



CERTIFICATION UPDATE

by Rick Ryan, CPBE
SBE Certification Committee Member
rickryan@wi.rr.com

Frequently Asked Questions

As the local certification chairman for Chapter 28, Milwaukee, Wis. and as a member of the National Certification Committee, I am often asked the same type of questions.

ie: What is the passing score of a certification exam? How many books can I use on the test?

Below is a list of the most frequently asked questions and their answers. Hopefully by having the answers to these questions, you will be more comfortable about the exam process and submit your application to become certified.

Q. What is the passing score for the certification exams?

- A. Certified Television Operator (CTO) - 90%
- Certified Radio Operator (CRO) - 90%
- Certified Broadcast Technologist (CBT) - 70%
- Certified Broadcast Networking Technologist (CBNT) - 70%
- Certified Video Engineer (CEV) - 70%
- Certified Audio Engineer (CEA) - 70%
- Certified Broadcast Television Engineer (CBTE) - 70%
- Certified Broadcast Radio Engineer (CBRE) - 70%

The following certifications require a score of 84 points out of 120, which is a combination of the multiple choice questions and the essay. The essay portion must score at least 10 out of 20 points .

- Certified Broadcast Networking Engineer (CBNE)
- Certified Senior Television Engineer (CSTE)
- Certified Senior Radio Engineer (CSRE)
- 8-VSB Specialist (8-VSB)

AM Directional Specialist (AMD)
Digital Radio Broadcast Specialist (DRB)

Q. What happens if I don't pass?

A. You can retake the exam for a \$25 fee as early as the next scheduled exam session. (Applicants are only notified whether they passed or failed an exam. Scores are not given out to anyone.)

Q. How long will it be once I've taken the test before I know the results?

A. That answer varies depending on the type of test you have taken. An exam that doesn't include an essay question can be graded and the results sent back within a couple days of receiving it at the SBE National office. If there was an essay included with the exam, those grades may take longer. (The essays are sent to members of the National Certification Committee for grading.)

Q. Once I pass an exam, what then?

A. You will receive a card and certificate of certification in the mail. Your certification is valid for five years. SBE will also notify your employer, or anyone else you designate, of your certification if you request it at the time of application.

Q. How many books may I bring to the examination?

A. As many as you like, but remember they cannot be used during the essay portion of the senior, specialist or networking engineer exams. You may also take in any book that you think may be helpful for your exam, even if it does not appear on the Suggested Reference Lists.

Q. How about written notes?

A. You may not utilize notes during the examination process. This is done

to insure the integrity of the question database.

Q. Are calculators and computers allowed during the test?

A. Calculators, yes -- computers, no. You may utilize your smart phone as a calculator but you will be required to put it in "airplane mode". You will be on your honor not to use it for recording notes during the test.

Q. Why aren't computers allowed?

A. Maintaining the integrity of the question database is critical to the success of our program. We want to be certain that the questions are not removed from the examination room, and by eliminating computers and restricting handwritten notes, we hope to accomplish that objective.


Q. Will success in a certification test guarantee a pay increase for me?

A. Sorry, no one can guarantee that. However, you will be joining a select group that proclaims to the world that they believe in investing in their future and improving their value to their employees.

Q. How current are the exam questions?

A. They are reviewed by the Certification Committee at least three times per year. We make a significant investment to keep the questions aligned with current technology.

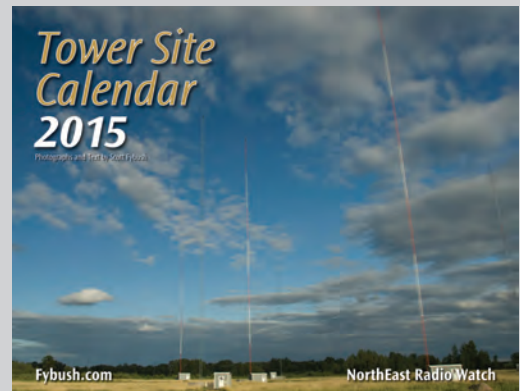
Q. How do I list my certifications

A. Check out the certification chart on the SBE website under "Certification" to better explain how to list your certifications. 

2015 Tower Site Calendar

The Tower Site Calendar - 2015, published by fybush.com/NorthEastRadioWatch is now available. This year's edition features the same gorgeous full-color photos you've come to expect, with a great variety of tower arrays. We go coast to coast, from Boston to Portland, from San Diego to Washington D.C., with stops in New Mexico, Wisconsin, Indiana, Illinois, New York, Pennsylvania, Minnesota, New Hampshire and Missouri.

Be sure to visit the SBE Bookstore on the SBE website, www.sbe.org, to order a calendar for 2015, today!



New SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION

Certified Professional Broadcast Engineers® and certified senior broadcast engineers who have maintained SBE certification continuously for 20 years, are at least 59 ½ 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 59 ½ 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 Professional Broadcast Engineer® (CPBE®) Robert Colford, Hyannis, Mass. – Chapter 11 Gary William Kirkpatrick, Rutherford, N.J. – Chapter 15	Certified Senior Radio Television Engineer™ (CSRTE™) Louis Sabatini, Jr., Palos Park, Ill. – Chapter 26 Certified Senior Television Engineer™ (CSTE®) Alfred Shjarback, Warren, N.J. – Chapter 15	Certified Broadcast Technologist® (CBT®) Rosanne Rowen, Ankeny, Iowa – Chapter 109
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Certified Professional Broadcast Engineer™ (CPBE™) A. Lee Clardy, Lafayette, La. – Chapter 9	Debbie Jones, Corona, Calif. – Chapter 131 Danny L. Shoen, Lexington, Ky. – Chapter 35
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JUNE EXAMS

Certified Senior Television Engineer™ (CSTE®) John Gold, Tucson, Ariz. – Chapter 32 Certified Senior Radio Engineer™ (CSRE®) Ray Uberecken, Colorado Springs, Colo. – Chapter 48	Certified Broadcast Television Engineer™ (CBTE®) Thomas Manning, Spokane, Wash. – Chapter 21 Certified Broadcast Networking Engineer™ (CBNE™) Glenn Axelrod, Framingham, Mass. – Chapter 11	Steven Barousse, Washington, D.C. – Chapter 37 Zachary Brockett, Grand Terrace, Calif. – Chapter 131 Harold Hampton, Springfield, Ore. – Chapter 76
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AUGUST EXAMS

Certified Broadcast Radio Engineer™ (CBRE®) Thomas Dunbar, Westminster, Md. – Chapter 46 John Hurni, Elmhurst, Ill. – Chapter 26 Josh Jones, McKinney, Texas – Chapter 67 Certified Broadcast Television Engineer™ (CBTE®) Ronald Anderson, San Antonio, Texas – Chapter 69 William Morales, Van Nuys, Calif. – Chapter 47	Certified Audio Engineer® (CEA®) Michael DaSilva, Sacramento, Calif. – Chapter 43 Eric Frame, Eugene, Ore. – Chapter 76 Certified Broadcast Networking Engineer™ (CBNE™) William Sewell, Norfolk, Va. – Chapter 54 Digital Radio Broadcast Specialist™ (DRB™) Christian Vang, Denton, Texas – Chapter 67	Certified Broadcast Networking Technologist® (CBNT®) Paul Delmiche, Fairfield, Conn. – Chapter 14 Daniel Paixao, Meridian, Idaho – Chapter 115 Kerry Plackmeyer, Baltimore, Md. – Chapter 46 Joshua Wood, Moreno Valley, Calif. – Chapter 131	Certified Television Operator® (CTO®) Alex Clarke, Suffolk, Va. – Chapter 54 Marcus Graves, Chesapeake, Va. – Chapter 54 Hillary Holt, Virginia Beach, Va. – Chapter 54 Kristen Lutz, Lititz, Pa. – Chapter 41 Christopher Rusch, Las Vegas, Nev. – Chapter 128 Terry Tabb, Virginia Beach, Va. – Chapter 54
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SPECIAL PROCTORED EXAMS

Certified Senior Radio Engineer™ (CSRE®) Michael Margrave, San Antonio, Texas – Chapter 69 Certified Senior Television Engineer™ (CSTE®) Kenny Elcock, Honolulu, Hawaii – Chapter 63 Certified Broadcast Networking Technologist® (CBNT®) Nathan Sides, Jackson, Mo.	Alabama Broadcasters Association Certified Broadcast Technologist® (CBT®) William Godfrey, Gainesville, Fla. – Chapter 7 David Harris, Beaver Falls, Pa. – Chapter 20 Michael Leal, Weslaco, Texas Austin Moore, Lebanon, Mo. Cory Wynn, Brandon, Miss. – Chapter 125	Advanced IP Networking Course for Broadcast Engineers 47 James Sensenbach, Glendale, Calif. – Chapter 47 David Sternfeld, Los Angeles, Calif. – Chapter 36 John Svetlik, Burbank, Calif. – Chapter 47 Michael Tosch, Thousand Oaks, Calif. – Chapter 47
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SBE CERTIFIED SCHOOL COURSE COMPLETION

Certified Broadcast Technologist® (CBT®) Bates Technical College Kevin Howard, Tacoma, Wash. – Chapter 16	Wilson Middleton, Tacoma, Wash. – Chapter 16 Kyle Paul, Tacoma, Wash. – Chapter 16 Avery Westmark, Tacoma, Wash. – Chapter 16 Kevin White, Lakewood, Wash. – Chapter 16 Mitchell Worby, Tacoma, Wash. – Chapter 16	DINFOS James Almon, Severn, Md. – Chapter 46 Robert Amoroso, Petaluma, Calif. – Chapter 40 Ernie Ensign, Bristow, Va. – Chapter 37
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CERTIFIED RADIO OPERATOR® (CRO®) CERTIFIED TELEVISION OPERATOR® (CTO®)

Matthew Egbert, Rocklin, Calif. Nathalie McElmeel, Rocklin, Calif. Dave Ogren, Suring, Wis.	Encompass Digital Media Christine Brown, Val Verde, Calif. William Craig, North Hollywood, Calif. Relah Eckstein, Tarzana, Calif. Mary Trini Garcia, Pasadena, Calif. Jessica Klausung, Northridge, Calif.	James Taylor, Glendale, Calif. Kevin Turner, Los Angeles, Calif. Stephan Vickers, North Hollywood, Calif. TIVA Paul Carr, Jacksonville, Texas Dee McCown, Duncanville, Texas	Marvin Hanley, El Paso, Texas Greg Pashchal, Garland, Texas Joel Rodriguez, Santa Rosa, Texas Susan Smith, McAllen, Texas Al Tagliavore, Friendswood, Texas Ricardo Viardell, El Paso, Texas
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JUBILEE PROJECT

Certified Senior Radio Engineer™ (CSRE®) AM Directional Specialist™ (AMD™) Kevin Kidd, Lawrenceburg, Tenn. – Chapter 111	Certified Broadcast Radio Engineer™ (CBRE®) Richard Horner, John Day, Ore. – Chapter 51
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The following applicants completed the recertification process either by re-examination, point verification through the local chapters and national Certification Committee approval and/or met the service requirement.

RE-CERTIFICATION

Certified Professional Broadcast Engineer® (CPBE®) Michael Hendrickson, Lakeville, Minn. – Chapter 17 Kevin LeRoy, Hanover, Md. – Chapter 46 Michael Snyder, Albuquerque, N.M. – Chapter 34 S. Merrill Weiss, Metuchen, N.J. – Chapter 15 Certified Professional Broadcast Engineer® (CPBE®) 8-VSB Specialist™ (8-VSB™) Timothy Stoffel, Reno, Nev. – Chapter 139 Certified Professional Broadcast Engineer® (CPBE®) AM Directional Specialist™ (AMD™) Michael Hayden, DeKalb, Ill. – Chapter 26 Certified Senior Radio Engineer (CSRE®) AM Directional Specialist™ (AMD™) Robert Stroupe, Jr., Missouri City, Texas – Chapter 105 Certified Senior Radio Engineer™ (CSRE®) John Boehm, Homewood, Ill. – Chapter 26 Fred Morton, Missouri City, Texas – Chapter 105 Ashley Wallen, Inglewood, Calif. Certified Senior Television Engineer™ (CSTE®) Ruben Calzadilla, Potomac, Md. – Chapter 37 Vincent Giordano, Safety Harbor, Fla. – Chapter 39 Kevin Johnson, Hoffman Estates, Ill. – Chapter 26 Paul Jonak, Moreno Valley, Calif. – Chapter 131	Richard Torpey, Bay Shores, N.Y. – Chapter 15 Certified Broadcast Radio Engineer™ (CBRE®) Guillermo Franco, Presidio, Texas – Chapter 38 Robert Sharkey, Pittsburgh, Pa. – Chapter 20 Mark Voris, Omaha, Neb. – Chapter 74 Certified Broadcast Television Engineer™ (CBTE®) Daniel Brown, Natick, Mass. – Chapter 11 Michael Flynn, Lake Mary, Fla. – Chapter 42 John Garcia, Henderson, Nev. – Chapter 128 John Garmendi, Old Bridge, N.J. – Chapter 15 Brandon Graham, Largo, Fla. – Chapter 39 Donald Jones, Trotwood, Ohio – Chapter 33 Michael Kemmerling, Aiea, Hawaii – Chapter 63 Jehan Maheswaran, Hudson, Mass. – Chapter 11 Glenn Rose, Raleigh, N.C. – Chapter 93 Edward Rupp, Austin, Texas – Chapter 79 Scott Storkel, Arlington, Va. – Chapter 37 Reed Wilson, Trophy Club, Texas – Chapter 67 Certified Broadcast Television Engineer™ (CBTE®) 8-VSB Specialist™ Randolph Kohout, Genoa, Ill. – Chapter 26	Certified Audio Engineer® (CEA®) Robert Fields, San Antonio, Texas – Chapter 69 Robert Musso, New York, N.Y. – Chapter 15 Certified Video Engineer® (CEV®) Nicholas Coelho, Pasadena, Calif. – Chapter 47 Michael Liebman, Brooklyn, N.Y. – Chapter 15 David McIntyre, Sunnyvale, Calif. – Chapter 16 Certified Broadcast Networking Technologist® (CBNT®) James Clarke, Valley Stream, N.Y. – Chapter 15 Michael Hendrickson, Lakeville, Minn. – Chapter 17 Randolph Kohout, Genoa, Ill. – Chapter 26 George Kowal, Kenilworth, N.Y. – Chapter 15 Michael Liebman, Brooklyn, N.Y. – Chapter 15 Jehan Maheswaran, Hudson, Mass. – Chapter 11 James Pollock, Mount Laurel, N.J. – Chapter 18 Jack Roland, Wheat Ridge, Colo. – Chapter 48 Robert Stroupe, Jr., Missouri City, Texas – Chapter 105 Certified Broadcast Technologist® (CBT®) Timothy Annett, Topeka, Kan. – Chapter 3 Richard Barton, Helotes, Texas – Chapter 69	Francis Bobro, Jr., Scenery Hill, Pa. – Chapter 20 Jeff Crews, Lake Wales, Fla. – Chapter 39 Curtis Harper, Benton, Ken. – Chapter 35 Sergey Kurakin, Spokane, Wash. – Chapter 21 Gabriel Lopez, Atlanta, Ga. – Chapter 5 John Lorentz, E. Chatham, N.Y. – Chapter 15 Stephen Marshall, Orlando, Fla. – Chapter 42 Kira Parker, Boise, Idaho – Chapter 115 Deno Thomatos, Denver, Colo. – Chapter 48 Stephen Zelenko, Pittsburgh, Pa. – Chapter 20 Certified Television Operator® (CTO®) Randy Borgwardt, El Cajon, Calif. Cherish Dollar, Las Vegas, Nev. Marc Fenton, Moreno Valley, Calif. Victor Fitz, Wichita, Kan. Mike Garner, Broomfield, Colo. Dianne Mulherin, El Cajon, Calif. Steven Olinghouse, Oklahoma City, Okla. Christopher Roach, Luzerne, Pa. Heidi Roach, Luzerne, Pa. Rohan Shand, Lynwood, Calif. Londal Thorpe, Kissimmee, Fla. Ramon Villavicencio, Camarillo, Calif. Will Washington, El Cajon, Calif. Certified Radio Operator® (CRO®) Tim Parish, Sacramento, Calif. – Chapter 43
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SBE Chapters present their Engineers of the Year

Eleven members were selected to receive their chapter's Engineer of the Year Award earlier this year. Each winner was presented with a certificate from the SBE National Office during a chapter meeting. The Society of Broadcast Engineers congratulates the members being recognized by their chapter. Eight of the recipients are pictured below.



Blake Thompson (left) receives Chapter 70, Northeast Ohio, Engineer of the Year award from Chairman, John Hovanec.



Jim Dalke (right) receives the Chapter 16, Seattle, Engineer of the Year award.



Antonio Castro (left) receives the Engineer of the Year award from Chapter 38, El Paso.



Tim Laes (right) receives the Chapter of the Year Award from Chapter 80, Fox Valley, Wisc.



Ray Lenz, winner of Chapter 54, Hampton Roads, Va., Engineer of the Year award.



Jon Strom received the Engineer of the Year award from Chapter 109. in Des Moines, Iowa.



Ed Martin (right), Chapter 113 Knoxville, Tenn., receives the Engineer of the Year award from Vice Chairman Rodger Washington.



Johnny Stigler of Chapter 67 in North Texas received the Engineer of the Year award.

ELECTED from page 1

- **Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE** Director of Engineering, Texas A&M University, College Station, Texas
- **Kim Sacks, CBT**, Engineer, CBS Radio Washington, D.C., Lanham, Md.
- **Eric Schecter, CBRE**, Director of Engineering, CBS Radio/Phoenix, Scottsdale, Ariz.

The national board of directors is responsible for the development of policy and determines the programs and services the society provides to its members. Those just elected will join four other directors who have one year remaining in their two-year terms:

- **Ted Hand, CPBE, 8-VSB, AMD, DRB**, Director of Engineering/Operations, COX Media Group-Charlotte, Charlotte, N.C.
- **Kirk Harnack, CBRE**, VP and Executive Director, Telos Systems, Nashville, Tenn..
- **Ched Keiler, CPBE, 8-VSB, CBNT**, Broadcasting Consultant, Ft. Lauderdale, Fla.

- **Dennis Wallace, CBTE**, Managing Partner, Meintel, Sgrignoli & Wallace, Waldorf, Md.

As Immediate Past President, Ralph Hogan, CPBE, DRB, CBNE, Director of Engineering at KJZZ-FM/KBAQ-FM, Tempe, Ariz., serves on the Board for the coming term. John Heimerl, CPBE has been appointed to fill the unexpired director term of Tom Ray, who resigned earlier this year, effective Oct. 8, 2014. Induction of the newly elected officers and directors will be conducted during the SBE Annual Membership Meeting, held as a part of the SBE 50th Anniversary National Meeting in Verona, N.Y. The membership meeting will be streamed live via the Internet from 3 to 4 pm ET, Wednesday, October 8. The SBE National Meeting is being held in conjunction with the SBE Chapter 22 Broadcast & Technology Expo.

The election was conducted from July 21 through August 21. Voting was available via the Internet and through the mail. A total of 1,148 ballots were cast with 1,046 of them cast electronically.🗳️



Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT



James E. Leifer, CPBE,



Andrea Cummis, CBT, CTO



Tim Anderson, CPBE, DRB, CBNE



Benjamin Brintzer, CPBE, AMD



Gary Kline, CPBE, CTO



Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE



Kimberly Sacks, CBT



Eric Schecter, CBRE

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WELCOME TO THE SBE

NEW MEMBERS

Cherish A. Dollar - Las Vegas, NV
Myron D. Fanton - Atchison, KS
Aronica Glover - Spencerville, MD
Vanessa Sabatier - Long Island City, NY
Nancy Trombley - Hampton, GA
Thomas N. Kurzy - Houston, TX
James A. Almon - Severn, MD
Sandra W. Christian - Tyrone, GA
Chase K. Cook - Prattville, AL
William T. Godfrey - Gainesville, FL
Gina C. Keel - Houston, TX
Duval T. McLean - New York, NY
Austin R. Moore - Lebanon, MO
Shane R. Scott - Hartselle, AL
Martin R. Bates - Barberville, FL
Arwa Elbeshbishi - Queens, NY
Bill R. Hieatt - Colleyville, TX
Michael L. Maxwell - San Diego, CA
Randall McCune - Seattle, WA
William S. Murphy - Tucson, AZ
Joel North - St. John's, Newfoundland, Canada
Thomas A. Sielicki - Fairbanks, AK
John E. Skiba - New York, NY
Maxwell D. Da Silva - Brooklyn, NY

Jesse Truong - New York, NY
David O. Gonzalez - Astoria, NY
Marlo A. Crow - Bedford, TX
James T. Gott - Paducah, KY
Kevin L. Reilly - Huntley, IL
Shadi Sabra - Phoenix, AZ
Richard R. Seiler - Weatherford, TX
Elizabeth A. Tuura - Orlando, FL
Darrell Gordon - Raleigh, NC
Kevin Berlen - Clay City, IN
Charles M. Abell - Woodbridge, VA
Gene Coughlin - Orangevale, CA
Luz Diaz - Long Island City, NY
Shaun M. Dolan - Champaign, IL
Thomas A. Fisher - Henrico, VA
Walter E. Streeter - Mishawaka, IN
Surrrie T. Berkowitz - Kew Gardens Hills, NY
Dustin G. Hapli - Riverview, FL
Jason Quinn - Albuquerque, NM
Javier Aguerrevere - Parker, CO

NEW STUDENT MEMBERS

William R. Sanders - Trinity, FL
Kevin S. Howard - Tacoma, WA
Kyle L. Paul - Tacoma, WA
Marwin D. Polite - Tacoma, WA
Avery L. Westmark - Tacoma, WA
Kevin A. White - Lakewood, WA
Ryder R. Christ - Sunland, CA
Matthew J. Cederholm - Mitchell, SD
Wai Shan Chan - Hong Kong, China
Hiu Kwan Wong - Hong Kong, China
Jeffrey T. Hodapp - Springfield, MO

NEW ASSOCIATE MEMBERS

Theodore J. Ortega - New York, NY
Benjamin N. Jaffe - Fairfax, VA
Jo'el Roth - Lakewood, CO

RETURNING MEMBERS

Philip W. Beckman - Manitowoc, WI
Robert M. Amoroso - Petaluma, CA
Thomas T. Hormuth, Jr. - Baltimore, MD
David Paff - Dover, FL
Scott Fussell - Macon, GA
Richard W. Horner - John Day, OR
John A. Stefanick - Denville, NJ
Kurt Schroeder - Greenfield, WI
Clinton S. Ash - Wichita, KS
Jeremy S. Wilkinson - Bowling Green, KY
Joshua Arensberg - Brooklyn, NY
Philip E. Schoene - Alexandria, VA
Samuel N. Smith - Trevor, WI
Rosanne M. Rowen - Ankeny, IA
Luis V. Romero - Tampa, FL
Christopher F. Cormier - Raleigh, NC
Trenton J. Mengel - Alexandria, VA



LEGAL PERSPECTIVE

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

A Model City: Testing for Spectrum Compatibility?

Broadcasters have really taken it on the chin over the last few years in terms of spectrum allocations. To consider just a few things that we have talked about in this column lately: TV white spaces devices; sharing with fixed broadband backhaul in the 7 GHz BAS Band; TV Band repacking; sharing with the Department of Defense at 2 GHz; wireless microphone spectrum reductions and upcoming shortages at UHF, and the list goes on. But it used to be worse, you know. What is common to all of the above spectrum allocations decisions that affect broadcasters and BAS spectrum is that they are all, in effect, sharing proposals. We may not like them because they make it hard for us to arrange real time news feeds, or add levels of noise to bands that make a shot “iffy”. But putting other users in spectrum that we have had on, in some cases, an exclusive or almost exclusive basis is better than losing access to the spectrum entirely, which is the way those allocation decisions used to be made.

In the 1980s and much of the 1990s, the order of the day was not spectrum sharing, spectrum overlays, or testing receivers for “interference temperature” to determine sharing compatibility when new services are added to already fully deployed spectrum. Instead, the issue was whether or not to reallocate spectrum: whether to take the incumbent service out of a band entirely, and relocate incumbent licensees to some other band, or else make them use what is left of the incumbent service’s allocation in the subject band. It was a swapout: replacement of the incumbent service with a different service with perhaps a higher level of then-current cachet. Those days are long over, and probably the broadcasting community is well rid of them. The spectrum is fully deployed now and the only relevant inquiry (since there is no place to put displaced licensees in equivalent spectrum without creating a new sharing arrangement) is how to get the most efficiency (read re-use) out of each kilohertz as possible. That involves, inevitably, technical compatibility studies, and if possible, some real-world testing. Of course, if one of the current darlings of Congress, FCC and the White House (such as, for example, mobile broadband) is looking for spectrum, the needs and interests of the sharing partners and the development of objective compatibility studies tends to go quickly out the window. So, when FCC or NTIA come up

with a proposal to make compatible sharing evaluations fair and objective, and to create a technical metric for making these decisions, the proposals ought to be supported or at least seriously considered.


One of those proposals is now on the table. In July of 2012, the President’s Council of Advisors on Science and Technology (PCAST) made a series of recommendations to the President suggesting ways to maximize the use of “government-held” (i.e. Federal) spectrum by facilitating spectrum sharing as the main approach to spectrum management. The PCAST concluded that clearing and reallocation of federal spectrum to permit new users is not workable any longer. Instead, PCAST recommended a spectrum management paradigm based on spectrum sharing rather than exclusive use by one service. To facilitate sharing of spectrum, PCAST recommended the creation of an urban “test city” or “Model City” in a major U.S urbanized area to support experimentation in spectrum management.

FCC and NTIA jointly issued a public notice on July 11, 2014 discussing the “Model City” concept. FCC said that such an urban testing environment could “facilitate large-scale sustainable facilities for systems level testing in real-world environments across multiple frequency bands, potentially including selected federal and non-federal frequency bands.” FCC asked for comment on ways to establish, fund, and conduct the Model City program. What, they ask, are the “next steps” that NTIA and the FCC could take to develop specific approaches for effectively demonstrating and evaluating sharing technologies in real-world environments? What are the recommended spectrum bands for sharing, and what are the appropriate operational requirements? They also ask about public and private partnerships that would be useful in the Model City for encouraging spectrum sharing.

While it is easy to support the concept of spectrum sharing, it is difficult to develop sharing strategies that work. And failure is not an option and there is only one chance to get it right: an allocation plan that denies operators in one or more radio services the effective use of that allocation does not constitute sharing at all. The Model City concept is a reasonable and overdue effort to develop proof of new sharing concepts and compatibility before widespread deployment

of them. This minimizes the possibility that a proposed sharing technique will be found inadequate or incompatible after deployment. The Model City concept should be a final step in the development of sharing techniques. The goal of joint, public-private development and analysis of sharing technologies, followed by joint, public-private testing of these technologies in a controlled environment, culminating, if warranted, by live, rigorous, proof of concept testing in an appropriate Model City is a good idea.

SBE’s model for spectrum efficiency in Broadcast Auxiliary spectrum fits very neatly into this concept. SBE’s informal frequency coordination program allows compatible sharing within the BAS, CARS and LTTS licensee communities, and in recent years it has supported interservice sharing among, for example, the Department of Defense, the Air Force, NASA and the standard BAS/CARS/LTTS licensees. The SBE coordinator in the Model City should be involved in the process.

What city in the United States could serve as a Model City for testing and rollout of new spectrum use concepts and sharing proposals? From the BAS perspective, it makes sense to consider the most crowded markets: probably Los Angeles or New York. But when you think about it, no broadcast market is identical and what could work in New York might not work in Los Angeles. The choice of markets is not, however, the right focus. The FCC and NTIA are to be congratulated for bringing to the table a method of objective, technical analysis and real-world, real time testing of sharing concepts so that the incumbent radio services have a chance to see what sharing with newcomers is really going to be like. Bravo, FCC. Bring it on. 



FOCUS ON SBE

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

Is your chapter meeting the minimum standard?

When it comes to meeting the needs and expectations of our members, there is nothing more important for many of them than to have a functioning, quality chapter in which to participate. Good chapters provide local SBE members with educational opportunities, recognition of knowledge and achievement, a chance to flex leadership muscles and opportunities to interact with peers.

Each year, a significant number of SBE chapters are recognized for meeting a minimum standard of performance. The recognition is in the form of a monetary rebate of a portion of the membership dues individuals pay each year to be a member of the SBE. Chapters use the rebates to help fund their activities. The minimum standard is that at least five meetings are held each calendar year and are reported to the SBE national office. The reports include a list of attendees and a brief description of the meeting program. Most chapters meet more than five times a year; in fact, the majority meet once each month. We are pleased to recognize the chapters that met the minimum standard in 2013.



Members of Chapter 59, Kansas City discuss a topic at one of their meetings

Chapter Number, Location, Current Chairman.

- 1, Binghamton, Eric Adler
- 2, Northeastern Pennsylvania, Joseph Glynn, CPBE
- 3, Kansas, Jessica Rye
- 5, Atlanta, Robert Butler, CPBE
- 7, Jacksonville, Duane Smith
- 9, Phoenix, Robert Reymont, CPBE
- 11, Boston, Robert Yankowitz, CPBE
- 14, Connecticut Valley, Frederick Krampits, CPBE, CBNT
- 16, Seattle, Martin Hadfield, CPBE
- 17, Minneapolis, Joseph Conlon, CSTE, CBNT
- 18, Philadelphia, William Gellhaus, P.E., CPBE, CBNT
- 21, Spokane, Jerry Olson, CSRE
- 22, Central New York, Christopher Baycura, CEV
- 24, Madison, Kevin Trueblood, CBNT
- 26, Chicago, Gordon Carter, CPBE, CBNT, DRB
- 28, Milwaukee, Todd Boettcher, CPBE
- 30, South Bend, Timothy Chapman, CBT,

CBNT

- 32, Tucson, Mark Simpson, CPBE, CBNE, DRB, AMD
- 33, Southwestern Ohio, George Hopstetter
- 35, Kentucky, Jerry May, CPBE
- 36, San Diego, Andrew Lombard, CBTE
- 38, El Paso, Jose Castro
- 39, Tampa Bay Area, Steven, Hess, CPBE, CBNT
- 40, San Francisco, Arthur Lebermann, CPBE
- 41, Central Pennsylvania, Randall Miller, Jr., CBT, CBNT

- 69, South Texas, Lewis Miller
- 70, Northeast Ohio, John Hovanec, CSRE, CBNT, AMD, DRB
- 72, New Orleans, Ernest Kain
- 74, Midland, Edward Bok
- 76, Eugene, Dennis Hunt
- 78, Blue Ridge, J. Paxton Durham
- 79, Austin, Edward Rupp, CBTE, CBNT
- 80, Fox Valley, Stephen Konopka, CBRE
- 81, Grand Junction, Alfred Ladage
- 85, Central Western, Brian Ryel, CBTE
- 88, West Palm Beach, Steve Billing
- 96, Rockford, Ben Pflederer
- 103, Nashville, James Campbell III, CPBE
- 105, Houston, Frederick Morton, CSRE
- 109, Des Moines, Kevin Schrader, CBTE
- 111, Huntsville, Joseph Korab
- 112, Western Wisconsin, Mark Burg
- 113, Knoxville, Glen Wright, CBTE
- 115, Southern Idaho, Thomas Kettwig, CBT
- 117, Palouse Clearwater, Christopher Bailey CBT, CBNT, CTO, CRO
- 118, Montgomery, Wiely Boswell, CBRE, CBNE
- 122, Youngstown, Melissa Limpose
- 124, North Oregon, Everett Helm, CPBE
- 131, Inland Empire, Don Bartie, CPBE, CBNT
- 133, Buffalo, Raymond Felckowski
- 134, Beaumont/Lake Charles, Wayne Ozio
- 136, Rio Grande Valley, Peter Hoekzema
- 141, Medford, Keane Laguatan, CBT
- 145, Magic Valley, Thomas Lowther, CSRTE, CBNT

Will your chapter meet the minimum quality standard for 2014? There are still a few months to qualify. We hope your chapter will be counted among them.👉

- 42, Central Florida, Michael Flynn, CBTE
- 43, Sacramento, Robert Hess, CPBE
- 44, Shreveport, Rudolph Johnson, CBRE
- 46, Baltimore, Robert Lenio, CSRE
- 47, Los Angeles, Michael Tosch, CSRE, CSTE, CBNE, AMD
- 48, Denver, Shane Toven, CBRE, CBNT
- 49, Central Illinois, Gary Glaenzer
- 51, Tri-Cities, Jack Blum
- 52, Central Ohio, John Owen
- 53, South Florida, Carlos Sanchez, CPBE
- 54, Hampton Roads, Raymond Lenz
- 55, St. Louis, Terrence Dupuis, CBRE, CBNT
- 56, Tulsa, Roger Newton, CSTE, CBNT
- 58, Northeast (N.Y.), Charles Zariello, CBTE
- 59, Kansas City, Michael Rogers
- 66, Fresno, Ken Holden, CPBE
- 67, North Texas, Thomas Schuessler, CSTE
- 68, Birmingham, Tim Costley

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Engineering Perspective

by Tom Smith
tsmith@bms-inc.com
Member – Chapter 24, Madison, Wis.

A look at TV repack scenarios – part 1

With the release of the first set of rules on the proposed incentive auction of part of the UHF-TV spectrum, TV broadcasters still have many unanswered questions concerning the effects of repacking of the UHF band. On June 2, the FCC released a series of spreadsheets (http://data.fcc.gov/download/incentive-auctions/Simulation_Results/) that give a possible look at various scenarios for the repacking of the UHF band after the auction.

To get some idea of the possible effect on stations and the loss of viewing choices for the public, I looked at some of the data to see what the FCC is considering. I looked at Chicago and the surrounding markets. This provided a good look at how markets of varying sizes would be affected by a large market. I also looked at five large markets in the populated east coast and five large west coast markets with a large number of stations in each of these markets.

The databases include only UHF full power and eligible low-power TV stations. Stations in the VHF bands will only be affected by the auction if they decide to give up their channel. That vacated channel could then become a replacement channel for a UHF station wishing to move to one of the VHF bands. An explanation of the process can be found in the public notice (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0602/DA-14-677A1.pdf) announcing the release of the databases and the now closed comment period.

The FCC released a large amount of data. Three different databases gave a total of 100 different outcomes of the repacking of the UHF band. Databases one and two, from computer runs 1-50 and 51-75 respectfully, show possible population losses and channel assignments or channel losses. The third database is for computer runs 76-100 and was broken down by Designated Marketing Areas (DMA) or individual TV markets in addition to the information presented in the first two databases.

There were a total of 166,900 rows of data in the three databases. Each computer run shows the number of channels available to the remaining stations after the repacking, the number of stations needing to move to the VHF band, share a channel or cease operation and the possible loss of coverage

to part of the population that stations are now serving. The databases also show possible new channel allocations after the repacking. I used the data broken down by DMA because it was the easiest to break out information that would show the impact of repacking to the viewer and to each market from the loss of the stations when a channel is given up, along with the possible difficulties for the auction to proceed.

The first two databases show the effect on population loss to stations due to repacking, broken down to the location of stations by city. Most data on TV, such as viewing, coverage or revenue, is based on each market, not the individual cities within the market. To convert the data into DMA's in the first two databases would be a lengthy task. It would require combining all of the cities in a market together.

be compared to the number of stations in the market. The channel 30 and below group would give the FCC 120 MHz to auction and the channel 36 and below group would give the FCC 84 MHz to auction. These are the two targeted amounts of spectrum the FCC wishes to free up. (Channel 37 is not involved in the auction as it is assigned to space research and medical telemetry.)

The first group I looked at was the Chicago market and its surrounding markets, which includes Madison and Milwaukee, Wis., Rockford, Ill., South Bend, Ind. and Grand Rapids, Mich. KFXB-TV in Dubuque, Iowa is listed as part of the Madison DMA and is 77 miles to the west of Madison. The chart below is the data for Chicago and surrounding markets:

Looking at the data, it would seem that

Market DMA	Market #	Full Power	Class A	Data Runs 76-88			Data Runs 89-100		
				High	Low	AVG.	High	Low	AVG.
Chicago	3	14	7	7	7	7	1	1	1
Milwaukee	34	10	2	9	7	7	7	7	7
Madison	85	7	1	4	0	1.5	0	0	0
Rockford	135	3	0	3	3	3	2	2	2
South Bend	95	5	0	4	2	2.75	5	1	2.9
Grand Rapids	39	4	8	1	0	0	0	0	0

Because some large markets have numerous suburban cities with stations licensed to them, it is difficult to find and combine them into one group from databases as large as these.

To see the effect of the different possible repacking scenarios, I looked at each market and counted the number of stations which were listed as not having a UHF channel after repacking in each computer run. I then broke down the computer runs into two groups, one being computer runs 76-88 and the other being computer runs 89-100. The 76-88 computer runs were limited to allotments based on using channel 30 and below. The 89-100 computer runs were limited to allotments based on using channel 36 and below.

From each group of computer runs, I noted the highest number of stations not having a UHF channel available, the lowest number not having a UHF channel available and the average of stations not having a UHF channel available after the auction in each market. The number of existing full power and Class "A" LPTV stations in each market are listed in the chart above, so the number of stations affected in order to meet the FCC's goals can

Milwaukee, Rockford and South Bend would have to have the majority of the stations participate in the auction to meet the FCC's targets. Chicago would need more than half the stations participate to meet the FCC's target of freeing 120 MHz by limiting stations to use of channel 30 and below. Madison and Grand Rapids may not need anyone to participate.

I did look at the rest of the Wisconsin markets to see what the ripple effect between the Chicago and Milwaukee markets and the Minneapolis-St. Paul market would be. I found Green Bay able to have all the stations given a new channel. The Wausau and La Crosse/Eau Claire markets would only need one or two UHF channels to participate in the auction, because there were only a few instances in the channel 30 and under group where a station was listed as not having a channel available. The Twin Cities would be able to repack all of their UHF stations under both the 30 and under or the channel 36 and under scenarios, but the adjacent Rochester, Minn.. market did not fare as well with three to four stations out of five not having assignments when limited to

AC Video Solutions • 2014

Andrea Cummis (201) 303-1303
Consulting, Systems Design/
Integration

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
Development/Construction/
Management

ATCi • 2012

Anthony Graves (480) 844-8501
Satellite Communications Solutions
Provider

Audemat-Worldcast Systems Inc. • 2000

Christophe Poulain (305) 249-3110
Control Manufacturer

AVCOM of Virginia, Inc. • 2010

Warren McElfresh (804) 794-2500
Spectrum Analyzers

AVDB Group • 2014

Maria Cody (720) 940-7131
Audio/Video/Lighting & Control

Avid Technology • 2011

Rich Griffin (303) 248-3259
Broadcast Products and Services

Belden Electronic Division • 1991

Steve Lampen (800) 235-3361
Cable and Connectivity

Bell Tower • 2014

Bruce Burris (918) 789-9020
Tower Manuf., Design & Installation

Blackmagic Design • 2012

Terry Frechette (978) 337-0991
Switchers, Digital Cameras, Routers

Blonder Tongue Laboratories, Inc. • 2013

Jeff Smith (512) 238-6973
Encoders, Digital CATV, EdgeQAM/IP

Bracke Manufacturing LLC • 2012

Patra Largent (949) 756-1600
RF & Microwave Components

Broadcast Electronics Inc. • 1978

Tom Beck (217) 224-9600
Radio Equipment Manufacturer

Broadcast Microwave Services Inc. • 1997

Jim Kubit (805) 581-4566
Manufacturer, Transmitters,
Receivers, Antenna Systems

Broadcast Supply Worldwide • 1986

Shannon Nichols (800) 426-8434
Audio Broadcast Equipment Supplier

Broadcasters General Store • 2004

Buck Waters (352) 622-7700
Broadcast Audio Video Distributor

Canon USA Inc. • 1985

Larry Thorpe (201) 807-3300,
(800) 321-4388

Broadcast Lenses & Transmission
Equipment

Cavell, Mertz & Associates Inc. • 2011

Gary Cavell (703) 392-9090
Consulting Services

Chyron Corporation • 2013

Kieran Foster (905) 330-8902
Broadcast Graphics Solutions

Comark • 2013

Joe Turbolski (413) 998-1314
Broadcast Equipment &
Manufacturer

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 • 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

CueScript • 2014

Michael Accardi (203) 763-4030
Teleprompting Software & Hardware

Davicom, Division of Comlab, Inc. • 2014

Guy Fournier (418) 682-3380
Site Remote Controls

Dialight Corporation • 2006

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

Dielectric Communications • 1995

Cory Edwards (207) 655-8131
TV & FM Transmission & Cellular
Prod

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

Elektronika America Inc. • 2010

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

Emerson Network Power/Avocet • 2014

George Morgan (917) 592-0956
Avocet High Performance KVM

ENCO Systems Inc. • 2003

Kenneth Frommert (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

Floral Systems • 2008

Shawn Maynard (877) 774-1058
Television Broadcast Automation

FOR-A Corporation of America • 2013

Adam Daniul (305) 773-7608
Innovation in Video and Audio Tech.

Fujinon, Inc. • 1986

Thom Calabro (973) 633-5600
Broadcast & Communications Prod.

GatesAir • 1977

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

Geppo/General Cable • 1995

Dennis Thompson (407) 405-0756
Innovative Cabling & Custom
Solutions

Graham Brock, Inc. • 2012

Marilyn Matheny (912) 638-8028
Technical Consultation - Radio/TV

Heartland Video Systems, Inc. • 2011

Dennis Klas (920) 893-4204
Systems Integrator

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

Integrated Microwave Technologies • 2009

Elena Waldhuber (908) 852-3700
Microwave Video Transmission and
Receive Systems

JAMPRO Antennas Inc. • 2011

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

JVC Professional Video Products • 2014

Lon Mass (973) 317-5117
Professional Video Products

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 & Comm.

L-3 Communications Electron Devices • 2003

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

LBA Technology Inc. • 2002

Katie Sneed (252) 757-0279
AM/MW Antenna Equipment &
Systems

LYNX Technik • 2007

Steve Russell (661) 251-8600
Broadcast Terminal Equipment
Manufacturer

Markertek Video Supply • 2002

Andrew Barth (845) 246-3036
Audio, Video, A/V Broadcast Supply

Maxell Corporation of America • 1991

Patricia Byrne (973) 653-2423
Data/Broadcast Video Media

Micronet Communications Inc. • 2005

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

Microwave Video Systems • 2011

Warren J. 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

MusicMaster • 2014

Shane Finch (352) 351-3625
Advanced Music Scheduling Sol.

Myat, Inc. • 2013

Dennis Heymans (201) 684-0100
Transmission Line, Filters, Combiners

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

Nascap Productions • 2014

Abbey Kielcheski (704) 348-7131
Live/Post Production Services

Nemal Electronics Int'l Inc. • 2011

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

Neutrik USA, Inc. • 2012

Kathy Hall (704) 972-3050
Ruggedized Optical Fiber Systems

NewBay Media • 2013

Thomas Leader (212) 378-0438
Publisher of Broadcast Magazine

Orban • 2011

David Rusch (480) 403-8300
Audio Processing AMFMTV

Pacific Radio • 2013

Josh Phillips (818) 556-4177
Cables, Connectors, Tools, Racks

Pasternack Enterprises • 2001

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

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

Mark Bradford (800) 433-2105 ext.
560

Proaudio Broadcast Equipment Distrib.

Progressive Concepts • 2013

Sara Enriquez (630) 736-9822
FM & LPFM Radio Broadcast Equip.

Propagation Systems Inc. - PSI • 2010

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

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

Radio Frequency Systems • 2013

Jay Martin (203) 630-3311 ext. 1050
Broadcast Antenna Systems

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

Ryan Willaman (813) 579-4239
Tower Owner/Management

Rohde & Schwarz • 2003

Walt Gumbert (724) 693-8171
Broadcast Transmitters, Test &
Measurement

Rohn Products • 2013

Mark Allen (309) 566-3000
Towers and Poles

Ross Video Ltd. • 2000

Darren Budrow (613) 228-0688
Manufacturer, Television Broadcast
Equipment

Sage Alerting Systems Inc. • 2010

Gerald LeBow (914) 872-4069 ext.
210

Emergency Alert Systems Products

SCMS Inc. • 2000

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

Seacom Erectors, Inc. • 1997

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

SEG • 2014

Chris Childs (913) 324-6004
Supply Chain Products and Services

Shively Labs • 1996

Dale Ladner 888-SHIVELY
FM Antennas & Combiners

Shure Incorporated • 2012

Bill Ostry (847) 600-6282
Microphones, Wireless Systems,
Headsets

Sierra Automated Systems and Engineering Inc. • 2011

Al Salci (818) 840-6749
Routers, Mixers, Consoles, Intercoms

Signiant • 2012

Steve Gillen (781) 221-4000
Signiant Content Delivery Software

Snell Inc. • 1995

John Shike (818) 556-2616
Video Equipment Manufacturer

Solid State Logic • 2014

Steve Zaretsky (212) 315-1111
Digital Audio Consoles/Routers

Sourcerer. • 2014

Eddy Vanderkerken (214) 912-5007
Broadcast Equipment, T & M

Staco Energy Products Co. • 2010

Paul Heiligenberg (937) 253-1191
ext 128

Manuf. Voltage Regulators, UPS

Stay Online • 2013

Samantha Strazanac (919) 529-3133
Custom Cord Manufacturing

Superior Broadcast LLC • 2013

Jimmie Joynt (972) 473-2577
TV & FM Trans., Microwave & Encod.

Superior Electric • 1995

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

Sutro Tower Inc. • 1989

Eric Dausman (415) 681

Member in the Spotlight

Ken Sell got his first broadcasting job in 1978 as a television and radio engineer at KMTC-TV 27 and KTXR-FM in Springfield, Mo. His career has included stops at two Kansas State Network stations and WRIC-TV8 in Richmond, Va. He is currently chief engineer for ION Media network's KPPX-TV51 in Phoenix, Az.

Ken says, "At every station and location, I was presented with multiple construction and learning opportunities, which I enjoyed the most. These included building and facility construction, rebuilding and wiring, new equipment installations, circuit building and construction; and of course, trouble shooting and testing at all levels." He had missed the old and earlier days when television upgraded from black and white to NTSC color but says he's fortunate to have participated in the advancement of digital, high definition, and the demise of the old NTSC format. Ken went on to say, "Although the newer state of the art CPU and plug and play does make life somewhat easier these days, I do miss the old days of being able to troubleshoot to component level on most equipment."

Ken has been a member of the SBE since 1981 and holds the CPBE, 8-VSB and CBNT certifications from the SBE. He's a member of Chapter 9 in Phoenix. What he enjoys most about his SBE membership is its multiple levels of participation. "I mostly enjoy and participate in local chapter meetings. The comradeship, technical programs and local area information is gratifying," says, Ken. "SBE's various certification and education levels helps me try to stay ahead and on top of current and future Broadcast technology."

Someone who influenced Ken towards a career in broadcasting was John Overstreet, an instructor of radio communications theory at Salina Area Technical School where Ken studied electronics. Overstreet was a long-time radio broadcast and communications engineer as well as a Ham operator, which helped fuel Ken's interest in Amateur Radio. He holds license KZ0X.

Ken enjoys collecting antique tube radios and equipment, old engineering books, and learning and tinkering with computers and



new technology. He also enjoys spending time with his three adopted children; pedigree Maine Coons. ●



Ken Sell with Margarita, his Silver Maine Coon, along with a few of his antique radios.

Membership Meeting, Awards program will be webcast live

The 50th SBE Annual Meeting will be held about the time you are receiving this issue of The Signal. The SBE Chapter 22 Broadcast & Technology Expo is the host event and Turning Stone Resort and Casino in Verona, N.Y. is the location.

This is an important event each year, but especially so this year as the society takes a final look at the past 50 years and ahead to the coming years. During the SBE Annual Membership Meeting, which is held from 3-4 pm ET, on Oct. 8 and streamed over the Internet, we'll take a look at our history with a couple of special features. SBE President, Joe Snelson, CPBE, 8-VSB, will share with members the vision of where the SBE is heading in the future. This is based on work that began with a strategic planning day in June 2012, followed by recommendations developed by member task groups which were then approved for implementation by the national board of directors.

The annual membership meeting will include reports on issues of interest to members and the induction of newly elected members and officers of the national board. A link to the webcast will be posted on the SBE website prior to the events. The membership meeting webcast is sponsored by AC Video Solutions, BlackMagic Design, DVEO and Orban.

The program portion of the SBE

National Awards Dinner will also be streamed live, beginning at 6:15 pm ET on Oct. 8. The dinner includes presentations of the society's most important awards; the James W. Flanders SBE Engineer of the Year Award to James A. Dalke, CPBE, 8-VSB, AMD, CBNT; the James C. Wulliman SBE Educator of the Year Award to Norman P. Portillo, CBT; and the SBE Technology Award to DVEO. The evening concludes with the presentation of the SBE Fellow honor to Gino Ricciardelli, CPBE of Chapter 1 in Binghamton, N.Y.

Keynote speaker for the evening is Sam Matheny, EVP and CTO of the NAB, who will offer his vision of where technology is taking the broadcast industry in the future. The SBE will recognize a number of chapters for achievements this past year related to member growth, certification levels and communication with members. Our sponsor for this year's dinner is The Telos Alliance.

The SBE Chapter 22 Broadcast & Technology Expo is the largest regional broadcast tradeshow in the northeast and features more than 60 exhibit

booths displaying products and services for the broadcast and media industry. The Expo lineup includes presentations on engineering, technology integration, workflow and production. Lunch will be available and there is a reception from 3 to 5 pm. Contributing sponsor for the reception is Vislink Broadcast.

The SBE National Meeting begins on Oct. 7 with a meeting of the national SBE Certification Committee from 2 to 4 pm, the fall meeting of the SBE Board of Directors from 6 to 10 pm, and on Oct. 8 the annual SBE Fellows Breakfast, honoring all SBE Fellow members, sponsored by Kathrein, Scala Division.

Turning Stone Resort and Casino is located off Exit 33 of the New York State Thruway in Central New York State. Registration for the SBE Chapter 22 Broadcast & Technology Expo is free and can be done on-site. Expo registration also serves as your registration for the SBE National Meeting events, with the exception of the National Awards Dinner. Tickets for the dinner are available for \$15 each and can be purchased at the SBE National website, www.sbe.org. A limited number of tickets may be available on site. ●

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THANKS TO THE FOLLOWING SUPPORTERS FOR THEIR CONTRIBUTIONS:

ENNES SCHOLARSHIP

Dennis Daskiewicz, Omaha, Neb.

YOUTH SCHOLARSHIP

Charles Bullett III, Emeryville, Calif.

Eugene Hinez, Chatham, Ont.

A snapshot in time



Leaders of the SBE and RTNDA open the 1993 convention and trade show held jointly in Miami Beach. Included are (l-r) Hong Ryan Kim, President KOBETA, SBE VP Chuck Kelly, SBE President, Richard Farquhar, RTNDA President David Bartlett and RTNDA chairman, Gary Hanson.

MEMBERS ON THE MOVE

Sheila Cowley, CRO is now adjunct instructor at St. Petersburg College, School for Music Industry and Recording Arts in St. Petersburg, Fla.

Bill Hamilton is now Chief Engineer at WBUW TV., Madison Wisc.

John Kemps, CBT, Napa, Calif., is now MU Engineer at NEP Broadcasting.

David Layer, Washington, D.C., has been awarded the Consumer Electronic Association's annual Technology & Standards Leadership Award. Layer is senior director, advanced engineering at the National Association of Broadcasters.

Chuck Maines, Richmond, Ind., is now a sales representative to the SCMS midwest sales team.

Lamar Smith, Beasley Broadcasting Regional Engineering Manager in Las Vegas, Nev., has been named the company's 2014 Engineer of the Year.



Merrill Weiss, CPBE, Metuchen, N.J., has been named chairman of the ATSC TG3, Technology Group; the new "Ecosystem" Specialist Group to model and evaluate the environment in which ATSC 3.0 systems will be deployed.

Have you recently made an employment change or received a promotion? Let your fellow SBE members know about it. Send your news to Dan Kissel at dkissel@sbe.org.



Broadcast Phones & Codecs



Audio Processing for Radio and Internet Streaming



Audio Time Management



AoIP-Connected Broadcast Studios + Consoles



Audio Processing for Television

MARK YOUR CALENDAR

SBE Chapter 22 Broadcast & Technology Expo

October 8, 2014

Verona, N.Y.

Turning Stone Resort and Casino

SBE National Meeting

October 7-8, 2014

Verona, N.Y.

Turning Stone Resort and Casino

AES Convention

October 9-12, 2014

Los Angeles, Calif.

SBE Certification Exams Oct. 12

Advanced IP Networking & CBNE Study Topics

October 17, 2014

iHeart Media Bldg. Miramar, Fla.

South Florida, SBE Chapter 53

SBE Certification Exams - Local Chapters

November 7-17, 2014

Deadline for applications is October 8, 2014

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REPACK from page 12

channel 30 and under. Rochester did not lose any assignments in the Channel 36 and under group.

In the December issue, I'll look at the some of the largest markets on both the crowded east coast and the large west coast markets with numerous TV stations.

Thomas Smith retired in 2011 after 35 years with WHA-TV, Wisconsin

Public TV, in Madison. He continues to do contract work for radio and video production facilities. He's been a member of the SBE since 1970 and holds life certification as a Certified Professional Broadcast Engineer. He's an active member of SBE Chapter 24 in Madison and has served as its chairman and in other leadership roles.



B. 6.3 dB

The peak envelope power of the 8-VSB signal is the result of the combined ringing of the various combinations of symbol values. Data level transitions occurring over a period of plus and minus 35 symbol periods contribute to the peak envelope power. Peak excursions as high as 9 dB (8X) above average have been reported. Despite these extremely high peaks, there have been no reports of damage to antennas, transmission lines, or transmitter components. The duration of these peaks could be measured in nanoseconds, and occur very rarely. The peaks appear to have no capacity to sustain an arc, and 99.9% of the 8-VSB signal peaks are typically within 6.3 dB (4.25x) of the 8-VSB average power

Answer from page 5



LIVESHOT



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