



the SIGNAL

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

**AUGUST
2009**

Volume 22, Number 4

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2008-09 National Awards Announced

The Society of Broadcast Engineers has announced the winners of its 2008-09 National Awards. Winners will be recognized at the Society's National Awards Dinner on October 7, 2009 in Verona, N.Y. The event is part of the annual SBE National Meeting, which is being held in conjunction with the Chapter 22 Regional Broadcast and Technology Expo in Verona, N.Y. held at the Turning Stone Resort and Casino.

The winner of the SBE **Broadcast Engineer of the Year Award** is **Craig Strom**. Strom has been a member of SBE since 1998.

Strom was nominated for this prestigious award for the work he has done regarding how to mitigate 2,110-2,120 MHz Advanced Wireless

Services (AWS)-into-TV BAS interference. Strom is the Assistant Director of Engineering WLS-TV in Chicago, and has been with the station since 2000. Strom has served as the Chicago area Above-1 GHz BAS frequency coordinator since 1996. He is well known for his report dated December 26, 2008, *T-Mobile AWS Filter Implementation Progress Report*. The report documents the custom filter designed by Commercial Microwave Technologies (CMT) for T-Mobile, a major Advanced Wireless Services (AWS) operator, does not degrade digital electronic news gathering (ENG) signals, even when high-level digital modulation is used. Strom has also actively participated in 2 GHz TV BAS issues, including ET Docket 95-18, ET Docket

See **AWARDS** on page **10**

VOTE FOR YOUR NATIONAL BOARD OF DIRECTORS!

Ballots for the annual election of members to serve on the SBE national Board of Directors were mailed at the end of July. Members are encouraged to vote each year for candidates for the four officer positions and six of the twelve director seats. The Board consists of 17 members, including four officers, 12 directors and the immediate past president.

The Nominations Committee was chaired this year by Immediate Past President, Chris

Scherer, CPBE CBNT, of Overland Park, Kan. His committee prepared a list of candidates who have agreed to commit their time and resources to serve, if elected. The list of candidates, with photographs, follows at the end of this article. As of this writing in early July, many candidates for the Board had been nominated from the membership while all others were submitted by the Nominations Committee. The deadline for nominations from

See **ELECTION** on page **11**

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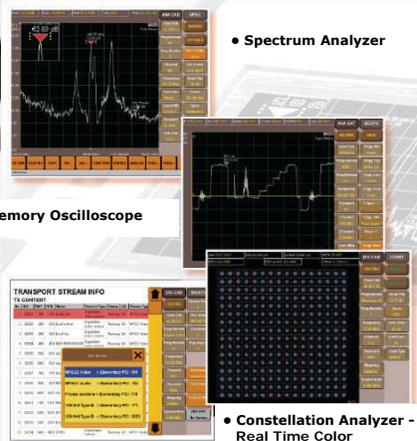
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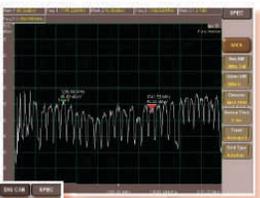
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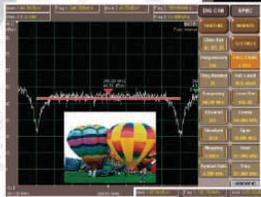
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the SIGNAL is published bimonthly by the Society of Broadcast Engineers, Inc., 9102 North Meridian Street, Suite 150, Indianapolis, IN 46260. Questions/comments regarding editorial content, design or advertising should be referred to Holly Essex at (317) 846-9000 or hessex@sbe.org. SBE is a registered trademark of the Society of Broadcast Engineers.

SBE National Webcast will air on October 7

The Society of Broadcast Engineers will broadcast its third annual SBE National Webcast to members, guests and others interested in the Society on Wednesday, October 7 from 2:00 pm to 3:00 pm EDT. This will be the first time that the program will be aired during the SBE National Meeting and it will emanate from the Turning Stone Resort and Casino Events Center arena, location of the Chapter 22 Broadcast & Technology Expo floor. This will also be the first time that the program will be broadcast during U.S. daytime hours.

Chapter 22 is providing or arranging for much of the technical organization necessary to produce the program. The broadcast will utilize a remote truck and several remote cameras. Live remotes will be done from the trade show floor.

SBE President, Barry Thomas, CPBE CBNT and SBE Vice President, Vinny Lopez, CEV, CBNT will emcee the Webcast and will be joined by other members of the national Board and staff during the course of the program.

SBE members are encouraged to reserve this one hour time slot so that you can tune in and participate. Arrangements are being made to accommodate questions from viewers. The program will also be recorded and posted for later viewing on the SBE website.

Details about how to access the Webcast will be announced approximately on September 8. Sponsors are needed to cover the costs of the program. Companies interested should contact John Poray, (317) 846-9000 or jporay@sbe.org, at the SBE National Office for details.



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1. DNS
2. DHCP
3. WINS
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answer on page 21

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SBE: better connected

BY **Barry Thomas, CPBE, CBNT**
SBE President

During a recent conversation, I heard a statement that every chapter chairperson has faced. The objection says something like this: “My company does not allow me to communicate with other engineering departments. Interaction with others in the engineering community [meaning competitor stations] is forbidden.”

I think this is a way of dodging the question and pointing a finger at “the man” as an excuse for not participating. It defers personal responsibility for a choice. Most of us don’t want to be seen in a negative light so if there’s a convenient excuse we tend to use it.

But what if the limitation is actually true? Your boss has actually forbidden you to participate in SBE activities. Really? Would you really be fired for speaking to an engineer from another station? Do you believe your employer has the right to restrict who you interact with in your personal time? Can your employer forbid you to participate in a city council meeting or Scout troop? What if your competitor was a member of one of these groups? Your employer has no more right to demand such a requirement that to require you to attend a certain religious service.

I’ve heard this claim justified by saying that SBE meetings are used for job hunting. Is forbidding an engineer from participating in SBE meetings really keeping that engineer in his employ? Most broadcast employees are “at will” employees, meaning that the employer can terminate or the employee can leave at any time. At-will employment can allow employers great flexibility to fire an individual for a multitude of reasons,

and fraternization with competitors may be one of many established criteria to simplify firing someone. If SBE participation is just the reason the employer has latched on to, your problem is not SBE; it’s something much bigger.

If your participation is restricted, you should know if it is based on a written policy that applies across the board. Is it perhaps addressed only to you? If the policy is consistently applied then again, you should consider how the company can reasonably restrict your personal time. If however, a policy is being selectively enforced the problem is likely not industry participation but something more personal.

Of course you need to choose your battles. Please know the SBE cannot advise you on how to resolve any individual human resources problem. That would be more like the role of a trade union, and the SBE is NOT a trade union. First; we’re not a trade, we’re a profession. Second, the SBE is not a trade group but a professional association created for the benefit of its members. These are important distinctions that relate to our own careers and how the Society exists to support us all.

Perception and reality

What is your employer’s perception of you – particularly with respect to the Society? Are you a cooperative, team-player who clearly has the company’s and your manager’s interest at heart, or a grouchy curmudgeon waxing on about the good old days under an SBE mantle?

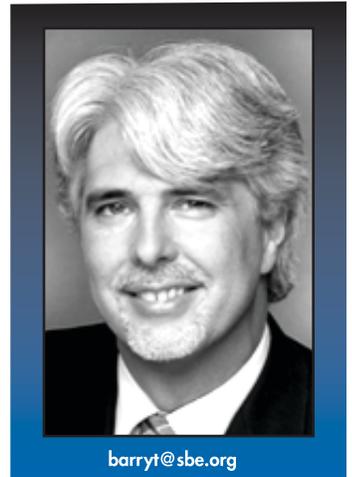
Does your manager perceive the Society as something that adds value to you or detracts value and time from your job? Do you continually look to align your priorities with that of your manager? Can the managers count on you to think

in competitive terms and protect the value of their products?

Can you be trusted to act on the manager’s behalf? If the answers to any of these questions is no; SBE participation is a symptom of a problem, not the problem itself.

Over the years, I’ve spoken to several engineers who have been told by their manager not to participate in the Society. It is almost always followed by an indictment of the manager making the requirement: the manager lacks skills, and has a limited scope, suspicious nature or general nasty demeanor. I can hear the very reason this engineer is discouraged from public discussion. As the engineer talks about the manager, I am witnessing backbiting, complaints and company disloyalty. Is it any wonder that the manager doesn’t trust the employee? Is it any wonder that the manager doesn’t want people communicating if that’s the way he is being characterized? This is a small industry. What you say gets around very quickly. It does not matter if what you say is true. In that one exchange, the member has just validated the very reason a non-participation restriction was put in place.

Many employers understand the benefits of encouraging participation with professional groups. If you enjoy this situation, appreciate and treasure that good will. These employers are becoming a rare and beautiful thing. Demonstrate how SBE participation gives your employer value that other companies and stations do not have. Employers, manag-



ers, even engineering managers need to be repeatedly reminded that because of the SBE you are better connected, have access to better education and knowledge resources than non-SBE engineers; and that your work with SBE gives them an advantage.

One of my many reasons for participating in the SBE is that it makes me more valuable to my employer. I'm more connected, better informed, and better educated than my non-member counterparts. I have access, through the Society, to a network of professionals that can help me solve any problem. I have lost count how many times I have been made aware of an issue... even one in which I had no background but, after reaching out to my SBE colleagues, I gathered a very quick and amazingly complete understanding and could advise my bosses as a result.

My career is not my employer's purpose nor their responsibility. It is my purpose and the Society is a key way for me to develop that. My participation in the Society is not dependent upon my employers' support. It also means that I am the only one who can allow my employer to infringe upon it. There's a responsibility that comes with that freedom. A responsibility that I will constantly strive to bring the value of SBE Membership to benefit the people who employ me. That is the least I can do in return for their support.

I put a great deal of importance on investing in my career and my industry. I have chosen to do this through the singular organization pledged to supporting broadcast engineering. All of my employers have been able to see how my participation has brought value to them. How can any employer object to something that the employee does, on his or her own, that increases his or her value to the employer?

SBE looks to attract more broadcast I.T. staff

BY **Scott Mason, CPBE**

SBE Membership Committee Chairman

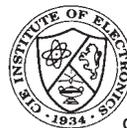
I had a few goals in mind when I ran for the SBE Board of Directors last year. One of those goals was to bring more broadcast information technology (I.T.) professionals into the SBE.

We have all seen the role of traditional broadcast engineers and broadcast I.T. personnel melding together. In many of our stations, the engineer is the I.T. person. In those locations where engineering and I.T. are separate disciplines, we find these two departments working closely together. Broadcast engineers and I.T. people have similar jobs. We both act as a "service department" at our facilities and we both use the same type of critical thinking and problem solving to diagnose and resolve problems.

The SBE Board has been studying the most effective way to attract our I.T. people to our membership. We have already discussed this amongst Board members, and now we'd like your input. I know that there are quite a number of you who are involved in the I.T. side of your operation. Here's a way you can help. We will be holding an I.T. focus group for one hour during the SBE National Meeting on the morning of October 7th in Verona, N.Y. The National Meeting is being held in conjunction with the Chapter 22 Broadcast & Technology Expo at the Turning Stone Resort and Casino. We are looking for seven to ten broadcast station I.T. people (non-members or members) to participate. The focus group will be discussing what services and benefits I.T. people would like to see that would draw them to SBE membership.

If you or someone you work with have I.T. responsibilities and would be interested in participating in the focus group, please send an e-mail to SBE Executive Director, John Poray, jporay@sbe.org, and let him know. He will give you the details of the focus group meeting. Each participant

in the focus group will be the SBE's guest for lunch that day and be able to take part in the Broadcast & Technology Expo.



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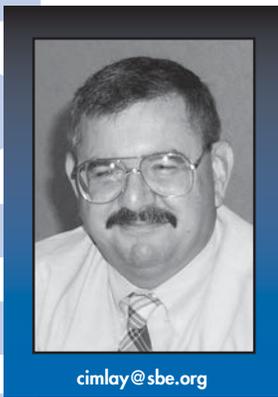
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Are you a broadcast engineer or a consultant?

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

I realized recently while reading an issue of *Radio World* that I had been around the broadcast industry quite a long time. I was reading about

State Registration of broadcast engineers, something I hadn't seen much about in the trade press for some time. It is, though, an issue that keeps coming up periodically, almost cyclically, and within an association like SBE, if you are around long enough, almost all issues come around again sooner or later. It is to me a fascinating topic because, unusually in legal matters, State registration statutes vary from State to State, and so does the level of enforcement of the statutes. So, every once in a while, SBE is asked to participate in regulatory proceedings in which a broadcast engineer is told that he or she can't call himself or herself an engineer, or worse, that the person can't do what he or she does for a living without a P.E. registration. We have been involved in dozens of such cases (with notable success and no notable defeats) since the early 1980s. SBE participated actively and successfully in appellate litigation on the issue in Illinois in 1998, in a very interesting case.

I have upset more than a few P.E.'s over time as a result of advocating SBE's position on State registration. Quite a few years ago, a very competent P.E. consulting engineer who I considered a good friend sent me a letter (as it turned out, the last one he ever wrote to me) in response to a piece I had written in some publication defending a broadcast engineer's right to practice broadcast engineering without passing a P.E. exam and becoming registered in the State. He told me that, the next time I was traveling to (his State) and needed brain surgery, I should go to a person who was not a licensed M.D. and see what kind of result I got. My friend's point, though more than a bit overstated, was an arguable one: perhaps a person should not be called a "consulting engineer" without being a registered P.E. in the State in which they practice. Longstanding SBE policy does not necessarily conflict with this. But State registration statutes aren't limited to regulating consulting engineers. The statutes are much broader than that, and, though they vary widely, they typically prohibit a person who considers himself or herself to be a "broadcast engineer" from utilizing that title, or worse.

There are two basic types of state statutes regulating the practice of "engineering". One type of statute says, in essence, that you can do what you want to professionally, but if you call yourself an engineer, you must have P.E. registration. The other is far more insidious: it says that you can't do certain things that constitute the practice of engineering - regardless of what you call yourself - if you aren't a registered P.E. in that State. It is my contention that this latter type of statute potentially is unconstitutional for several reasons, because it unreasonably restricts interstate commerce, and because many of the descriptions of what constitutes the practice of engineering are overly broad and vague. Pure legalities aside, many engineers tell me

that in their experience there is not a telecommunications element to the P.E. exam anyway, so what they do at broadcast stations is not enhanced by virtue of having demonstrated qualifications to become registered as a P.E. in the state in which their station is located.

Telecommunications Consulting Engineers who represent themselves to the general public as practicing "engineering" (assuming that the term is defined properly) are arguably reasonably subject to state registration statutes. The statutes, after all, are designed to protect the general public from unqualified persons performing various types of professional services (typically, State registration statutes apply to engineers, architects and surveyors). The 10th Amendment to the United States Constitution allows the states to exercise the "police power" jurisdiction that is reserved to them in order to protect the health, safety and general welfare of the citizens of that State. So, since a telecommunications consulting engineer hangs out a shingle and tells the public "come on in, I am able to help everyone who needs my services", then the State has an interest in protecting the general public by establishing a minimum performance test for those persons practicing "engineering". On that theory, a consulting engineer should be a registered P.E. I would feel better about that argument if indeed there was some relevance of the P.E. exam to the type of professional engineering that telecommunications consulting engineers really do. Perhaps by now the exams have incorporated a telecommunications element; I don't know.

However, let's talk about broadcast engineers for a moment. By this term, I mean employees of broadcast station licensees, or contract engineers who work exclusively for licensees of broadcast stations. These are not people who hold themselves out to the general public as practicing engineering (or in the vernacular of some State statutes, "professional engineering" which we will get to in a minute). Rather, their work is exclusively on instrumentalities of interstate commerce, which are regulated exclusively by the Federal government. Surely enough, the FCC has never itself licensed engineers. It has, however, always regulated all of the technical aspects of radio communications and has broad powers in that connection. The states have no concurrent jurisdiction. The FCC, pursuant to international treaty, Federal statutes, and its own regulations, has and is required to license and determine the capabilities of operators of transmitting equipment under its jurisdiction. In two places in the Communications Act, the FCC is charged with the responsibility to determine the qualifications of station operators, to classify them according to the duties performed, to fix the forms for such operators, and to issue them to those who are found qualified by the FCC. Section 318 of the Act says that the actual operation of all transmitting apparatus in any radio station for which a station license is required shall be carried on by a person holding an operator's license issued by the FCC.

FCC's deregulation of broadcast licensing over the years was not an invitation to the states to regulate the practice of broadcast

engineering. It is the FCC's job to do that, by whatever means it finds necessary. This, combined with the complete and exclusive authority of the FCC over technical aspects of communications provides a most compelling argument for Federal preemption of state regulation of those who perform technical functions at licensed, or FCC controlled, radio facilities. Arguably, this would include those who prepare FCC applications for filing with the agency.

The FCC's order eliminating the First Class Radiotelephone License years ago indicates that the FCC agrees with the argument above. FCC said in the order in Docket 20817:

There were a number of miscellaneous comments to the effect that a non-licensing regime would have other drawbacks. For example, APCO was concerned that, in the absence of Federal licensing, a hodge-podge of non-uniform state licensing requirements would be implemented. However, radio communications, since its inception, and by its very nature has always extended across state lines. The states have never concerned themselves with radio operator licensing. APCO gave no indication that the individual states might be inclined to begin any form of radio related regulation.

While the FCC's cavalier dismissal of APCO's concern wasn't entirely justified (as evidenced by the periodic cases of attempted regulation by the States of broadcast engineers over the past 25 years), it is true that, when challenged, state regulators have (generally speaking) not been willing to test the state registration statutes against broadcast engineers. SBE has been successful in numerous states in causing enforcement cases to be terminated. The typical scenario is where (most often based on a complaint from a P.E.) a broadcast engineer who is not a registered P.E. in that State has used that term to describe himself or herself and who has been issued a cease and desist order by a state registration board. Most enforcement cases (and most State registration statutes) are based on the use of the term "engineer" rather than an effort to regulate the function of a broadcast engineer. Even the regulation of the term, however, is a matter that affects broadcast engineers' careers and is a major problem. Often, a consulting engineer located in one of these "title" type states (or the District of Columbia, as an example) who is not a registered P.E. will use the title "technical consultant" to avoid the statutory restriction entirely (a "rose by any other name..."). However, in SBE's view, even if a broadcast engineer is not a registered P.E., he or she should be able to use the term "broadcast engineer" or similar.

If the States want to regulate what one calls himself or herself, how far does that go? If I hold a bachelor's degree in electrical engineering, isn't it reasonable that I should be able to call myself an engineer? If not, why not? If I am an SBE-certified broadcast engineer (in one of the categories of SBE certification that incorporates the term "broadcast engineer"), shouldn't I be able to use that term in describing my profession? SBE certification is the standard in the broadcast industry evidencing competence in broadcast engineering. The P.E. registration examination, frankly, is not. An analogy is my own profession, communications law. I am a lawyer by trade, and I call myself a lawyer. I can't practice law without a license (I can practice communications law before the FCC, however, by virtue of being licensed to practice law in any State or in the District of Columbia, even if my office is in a State in which I am not licensed to practice law). But I can call myself a lawyer even if I don't practice

law per se.

In 1998, SBE, together with Novell, Inc., challenged (on behalf of its members) a cease and desist order of the Department of Professional Regulation of the State of Illinois claiming that Novell's trademarked "Certified NetWare Engineer" program constituted the practice of "professional engineering" in violation of the registration statute. The Court of Appeals of Illinois held that the use of the term "engineer" by itself was not misleading and was not subject to regulation by Illinois, because it did not denote the practice of "professional engineering" which was defined in Illinois in a way that did not include software (or broadcast) engineering. Instead, the term applied to large scale public operations. SBE argued in its brief, and the Court ultimately agreed, that "other states have recognized the commonsense notion that professional registration statutes, like the Illinois act, are designed to prohibit only unlicensed practice of the types of vocational activities which have far-reaching effects on the public's well-being. They have allowed use of the generic term "engineer" in business contexts in which no professional engineering occurs if the use of the term does not reasonably imply state licensure as a professional engineer." In other cases, it has been uniformly held that a complete restriction on the use of the term "engineer" and "engineering", without more, would be an overly broad interpretation of a registration statute, far exceeding the intent of the legislature. Based on this interpretation, SBE policy is that a broadcast engineer should be able to use the terms "broadcast engineer" and "broadcast engineering" to describe his or her profession, and may also make reference to the type of SBE certification that he or she holds, which indicates that the person is an engineer with the qualifications indicated.

So, while of course no one should ignore or act contrary to what is on the books in the state in which broadcast engineers work, the State registration statute may or may not be enforceable. In any case, it may not be enforced as a practical matter, due to a very real fear that the registration statute might be invalidated in the broadcast engineering context. There is a thorough, though somewhat dated GAO report on this subject, which may still be available: it is called "Issues Concerning Licensing of Telecommunications Engineers and Technicians", GAO/RCED-90-106FS, released March 1990. It is a fact sheet for Congressional requesters. SBE contributed to this document and it is a reasonably comprehensive analysis of the subject. SBE will also assemble some of the landmark cases on the subject and make them available to members. In the meantime, if you have a question about this, let us know in an e-mail to SBE headquarters and we will see what we can do to assist you.

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The Formula for Certification Success

BY Paul Claxton, CPBE, CBNT *Certification Chairman Chapter 131*

Obtaining SBE certification isn't an easy task but it has plenty of rewards for both the engineer and their employer. The SBE was established in 1964 and eleven years later a certification program was created to recognize those engineers who met standards of the profession and showed a measured degree of competence. SBE Chapter 131 in the Inland Empire of California was established in 1999 and quickly earned many SBE Statistical Awards for "Most Certified Chapter, Class B" with a dedicated program to stress the importance of education and certification through funding of the test taking, and assisting the engineer preparing for the test cycle.

Broadcast radio and television is like many industries in that it has seen an almost constant state of change. From tube to transistor, to integrated circuits, to large scale integration and surface mount technology the industry continues to evolve with ever more complex equipments. An engineer who is not continuing to learn and evolve with the equipment may soon find themselves overwhelmed by change and struggling to stay productive.

Chapter 131 stresses the importance of education and provides free of

charge classes with curriculums written around the various certifications. Senior engineers have a responsibility to train their juniors and within the chapter we are blessed with a former SBE Educator of the Year to lead that effort. Classes run the experience range from CTO/CRO to Senior Broadcast Engineers. These classes are timed around the SBE's exam calendar to prepare the engineer in time for each cycle. For the senior engineer certification the instructor will come up with impromptu essay questions to get the students practiced at how to best answer that tough requirement. Joe Snelson's February 2004 *The Signal* article "The (not-so-) daunting essay question" hangs on the chapter's bulletin board to also assist in preparing for the essay question. Also on the bulletin

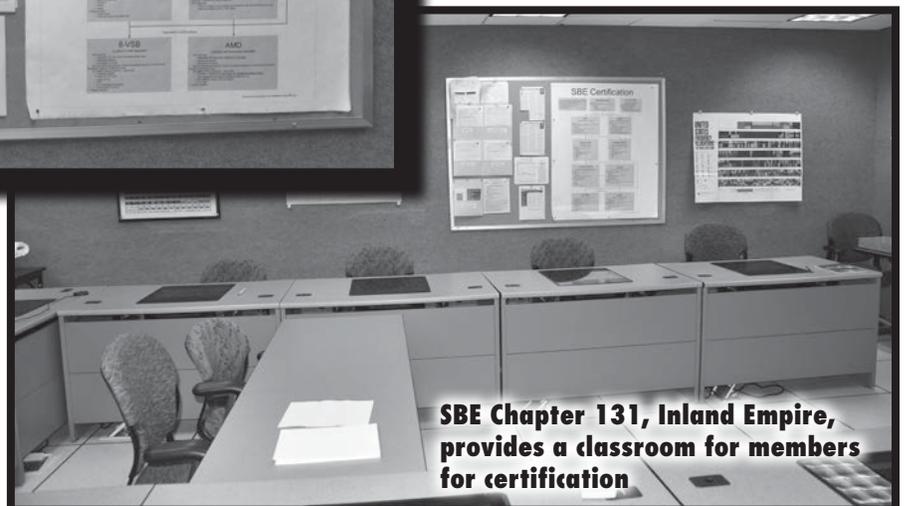
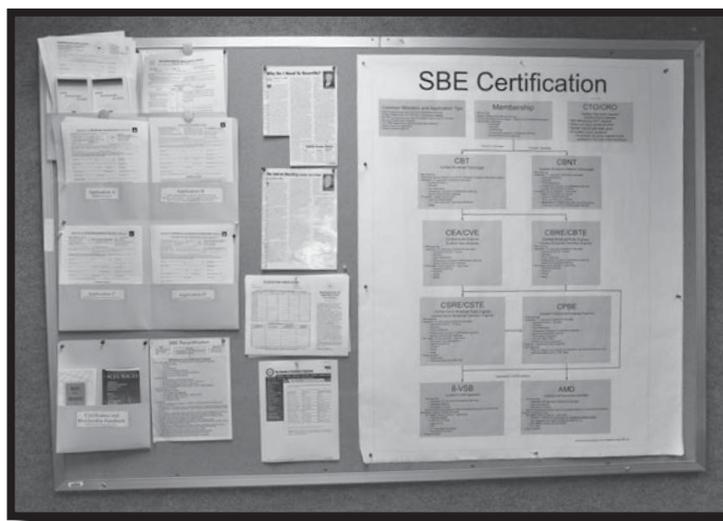
board are the current exam schedule, blank applications, and a large flow chart displaying the certifications and their requirements.

For those looking to be hired, having a certification doesn't mean a job is automatic, but having a SBE certification does help and can be the difference between getting an interview and not.

Recognizing the value of certification, companies like Taft Broadcasting of Riverside provide their engineers reimbursement for the cost of the first attempt at a certification and reward successful efforts with a small bonus. Chapter 131 pays for the cost of the certification for both certified radio and television operators.

Getting the word out is also important to creating a climate of successful certification. During each chapter meeting, the certification chairperson is given an opportunity to pass along information from the SBE, make announcements on upcoming certification calendar dates, and answer any questions from members

See **CERTIFICATION** on page 14



SBE Chapter 131, Inland Empire, provides a classroom for members for certification

CONGRATULATIONS

New SBE Certification Achievements

LIFE CERTIFICATION

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

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Alan Clark, Menomonee Falls, WI – Chapter 28
Willy Halla, Springfield, VA – Chapter 37
Michael Hayden, Dekalb, IL – Chapter 26
Don Kolbert, Wabasha, MN – Chapter 112
Benedicto Torrijos, West Covina, CA – Chapter 131

CERTIFIED BROADCAST RADIO ENGINEER® (CBRE®)

Steven Johnston, Madison, WI – Chapter 24

CERTIFIED BROADCAST TELEVISION ENGINEER® (CBTE®)

Laurence Einuis, Jr., Springfield, VA – Chapter 37
Richard Sheff, Milan, MI – Chapter 91

CERTIFIED SENIOR TELEVISION ENGINEER® (CSTE®) CERTIFIED 8-VSB SPECIALIST (8-VSB)

James Totten, Livonia, MI – Chapter 82

CERTIFIED BROADCAST TECHNOLOGIST® (CNT®)

Donald Francisico, Champaign, IL – Chapter 49

NEWLY CERTIFIED CPBE®

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

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Paul Easter, Lombard, IL – Chapter 26
Michael Hendrickson, Lakeville, MN – Chapter 17
Kevin Plumb, Trumbull, CT – Chapter 15

SBE CERTIFIED SCHOOL COURSE COMPLETION

CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY

Mike Modney, Coaldale, Alberta, Canada

Defense Information School

Thomas Miller, Fort Bragg, NC
Michael Shelkey, Frederick, MD

JUNE EXAMS

"Thank You" CHAPTER CERTIFICATION CHAIRS FOR YOUR ASSISTANCE

CERTIFIED SENIOR TELEVISION ENGINEER® (CSTE®)

Paul Jonak, Riverside, CA – Chapter 131
John Klambauer, Austin, TX – Chapter 79

CERTIFIED SENIOR RADIO ENGINEER® (CSRE®)

Jonathan Hardee, Apex, NC – Chapter 93

CERTIFIED BROADCAST RADIO ENGINEER (CBRE®)

Robert Hailey, Tampa, FL – Chapter 39
Joseph Rother, Tucson, AZ – Chapter 9
Phillip Vaughan, Cathedral City, CA – Chapter 131

CERTIFIED BROADCAST TELEVISION ENGINEER (CBTE®)

John Crane, Grand Prairie, TX – Chapter 67
Michael Kelly, Fayette, ME – Chapter 11
Erick Steinberg, Mill Valley, CA – Chapter 40

CERTIFIED AUDIO ENGINEER® (CEA®)

Dominic Dorman, Astoria, NY – Chapter 15
Robert Musso, New York, NY – Chapter 15
John Narus, Union City, NJ – Chapter 15

CERTIFIED VIDEO ENGINEER® (CEV®)

Michael Liebman, Brooklyn, NY – Chapter 15
Mark Weisheimer, Blacklick, OH – Chapter 52

AM DIRECTIONAL SPECIALIST (AMD)

Thomas Ray, III, New Windsor, NY – Chapter 15

DIGITAL RADIO BROADCAST SPECIALIST (DRB)

Thomas Ray, III, New Windsor, NY – Chapter 15

CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

Michael Cernak, Clearwater, FL – Chapter 39
James Clarke, Valley Stream, NY – Chapter 15
Dominic Dorman, Astoria, NY – Chapter 15
Yvonne Ewry, Upland, CA – Chapter 131
Jim Grubbs, Springfield, IL – Chapter 49
Robert Hailey, Tampa, FL – Chapter 39
Luke Howell, Denver, CO – Chapter 48
John Klambauer, Austin, TX – Chapter 79
Robert Lenc, Grand Junction, CO – Chapter 81
Michael Liebman, Brooklyn, NY – Chapter 15
Paul Michels, Raleigh, NC – Chapter 93
Farid Nakbeen, Woodside, NY – Chapter 15
John Narus, Union City, NJ – Chapter 15
Jack Roland, Wheat Ridge, CO – Chapter 48
Anamaria Scuric, New York, NY – Chapter 15
William Shaw, Bronson, MI – Chapter 91
Jimmy Truong, Menifee, CA – Chapter 131

CERTIFIED BROADCAST TECHNOLOGIST® (CBT®)

Jonathan Solomon, Columbia, MD – Chapter 132
Shewett Yohannes, Washington, DC – Chapter 132

CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

Solomon Bachman, Tucson, AZ – Chapter 9
Bradley Goehl, Houston, TX – Chapter 105
Kirstie Williams, Boise, ID

CERTIFIED RADIO OPERATOR® (CRO®)

Jacquelyn Douthit, Dallas, TX – Chapter 67
Mark Watson, San Antonio, TX – Chapter 69

CERTIFIED TELEVISION OPERATOR® (CTO®)

Drew Anusbisgan, Palm Harbor, FL – Chapter 39
Robert Collom, Mickleton, NJ – Chapter 18
Joel Curtin, Buffalo, NY – Chapter 133
Ruben Garcia, Sterling, VA – Chapter 37
Robert Holden, Columbus, OH – Chapter 52
Louis Mollizone, Oxon Hill, MD – Chapter 37
Alvaro Montealegre, Tampa, FL – Chapter 39
Jon Painter, Clearwater, FL – Chapter 39
Timothy Parish, Sacramento, CA – Chapter 43
Christopher Roach, Luzerne, PA – Chapter 2
Heidi Roach, Luzerne, PA – Chapter 2
Mark Watson, San Antonio, TX – Chapter 69
Seth Weinman, New York, NY – Chapter 15
Arthur Willetts, Renton, WA – Chapter 16

CERTIFIED BY LICENSE

CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

John Andrews, III, Vienna, VA – Chapter 37

Edwin Allen, III, Sarasota, FL – Chapter 39
Francis Bobro, Jr., Scenery Hill, PA – Chapter 20

Dennis Christensen, Keller, TX – Chapter 67
David Kalahar, Jr., Bakersfield, CA – Chapter 66
Curtis Kirk, Tyler, TX
Sergey Kurakin, Spokane, WA – Chapter 21
Cheng Li, Fort Bragg, NC – Chapter 132
Brian Marshall, Hyde Park, VT – Chapter 110
Chris Neuman, Agua Deluce, CA – Chapter 47
Kenneth Sands, Plymouth, MI – Chapter 82
Carl Sundberg, Eugene, OR – Chapter 76
Richard Warren, San Diego, CA – Chapter 36
Stephen Zelenko, Edgewood, PA – Chapter 20

CERTIFIED RADIO OPERATOR® (CRO®)

CERTIFIED RADIO OPERATOR® (CRO)

Solomon Bachman, Tucson, AZ
Seth Binderup, Los Angeles, CA
Donald Connelly, Cullowhee, NC
Matt Herz, Centennial, CO
Mike Morrissey, Centennial, CO
John Mothershed, Tucson, AZ
Franz Orocio, Los Angeles, CA

PASADENA CITY COLLEGE

Austin Andrews
Aaron Cornacchio
Santina Giordano
Seokwoon Kim
Dean Lee
Fred Lopez
Daniel Patronilo
Tommy Rillorta
Michael Ross
Mark Smith

LAKE LAND COLLEGE

David Gaslain
Broc Hemrich
John Myers

CERTIFIED TELEVISION OPERATOR® (CTO®)

CERTIFIED TELEVISION OPERATOR® (CTO®)

Dwayne Ayres, College Park, MD
Richard Bierlein, Moreno Valley, CA
Jason Hall, Littleton, CO
John Lee, Memphis, TN
Stephen Riley, Hillsboro, OR
Stephen Smith, Vancouver, WA
Rayanne Turner, Louisville, KY
Stephen Wade, Moreno Valley, CA
Caitlin Weston, Washington, DC

RECERTIFICATION

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

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)

Stephen Bauder, Boyceville, WI – Chapter 112
Kevin LeRoy, Hanover, MD – Chapter 46
Philip Mowbray, Grand Junction, CO – Chapter 81
Carlos Sanchez, Miramar, FL – Chapter 53
Ronald Vincent, Sr., Parker, CO – Chapter 48
Timothy Wright, Maywood, IL – Chapter 26

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®) 8-VSB SPECIALIST (8-VSB) AM DIRECTIONAL SPECIALIST (AMD)

Paul Christensen, Jacksonville, FL – Chapter 7

CERTIFIED SENIOR RADIO ENGINEER (CSRE®)

Randall Kerbawy, Beckley, WV – Chapter 116
Timothy McGuire, Archer, FL – Chapter 7

Noel Richardson, South Charleston, WV – Chapter 116

CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)

James Alexander, Wildomar, CA – Chapter 131
Robert Chambers, Orange City, FL – Chapter 42
Kevin Johnson, Hoffman Estates, IL – Chapter 26
John Pfankuch, Plymouth, WI – Chapter 80
Danny Shoen, Lexington, KY – Chapter 35

CERTIFIED SENIOR RADIO ENGINEER (CSRE®) AM DIRECTIONAL SPECIALIST

Kevin Kidd, Lawrenceburg, TN – Chapter 111

CERTIFIED BROADCAST RADIO ENGINEER (CBRE®)

Jon Kenneke, Albany, OR – Chapter 76
Timothy Whyte, Carmichael, CA – Chapter 43

CERTIFIED BROADCAST TELEVISION ENGINEER (CBTE®)

Scott Curtis, Aurora, IL – Chapter 26
Donald Dobbs, Keller, TX – Chapter 67
Michael Flynn, Lake Mary, FL – Chapter 42
Patrick Jones, Orlando, FL – Chapter 42
Myles Knowles, Kihei, HI – Chapter 63
Glenn Rose, Raleigh, NC – Chapter 93
Ramaward Sinanan Singeh, Orlando, FL – Chapter 42
Reed Wilson, Benbrook, TX – Chapter 67

CERTIFIED BROADCAST RADIO ENGINEER (CBRE®) DIGITAL RADIO BROADCAST SPECIALIST (DRB)

Ralph Brancato, Jr., St. Louis, MO – Chapter 55

CERTIFIED AUDIO VIDEO ENGINEER (CEAV)

Mike Curran, San Diego, CA – Chapter 36

CERTIFIED AUDIO ENGINEER (CEA®)

Jeff Smith, Monroe Twp., NJ – Chapter 15

CERTIFIED VIDEO ENGINEER® (CEV®)

Crystal Livingston, Mansfield, TX – Chapter 67
Thomas Matthies, Green Bay, WI – Chapter 80

CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

Paul Christensen, Jacksonville, FL – Chapter 7
William Cyree, National City, CA – Chapter 36
Robert Dawson, Menifee, CA – Chapter 131
James Schoedler, Denver, CO – Chapter 48
Glenn Williams, Belton, MO – Chapter 59

CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

Richard Barton, Helotes, TX – Chapter 69
Matthew Booher, Cincinnati, OH – Chapter 33
Theresa Boom, Pleasant Hill, CA – Chapter 40
Timothy Chapman, Buchanan, MI – Chapter 30
Nathan Chervek, St. Paul, MN – Chapter 17
Rick Congleton, Clayton, NC – Chapter 93
Algernon Crawley, Jr., Laurel, MD – Chapter 132
Latham Hamner, Raleigh, NC – Chapter 93
Curtis Harper, Benton, KY – Chapter 35
William Hudson, San Carlos, CA – Chapter 43
John Lorentz, E. Chatham, NY – Chapter 15
James Malone, Jefferson City, MO – Chapter 143
Stephen Marshall, Orlando, FL – Chapter 42

CERTIFIED TELEVISION OPERATOR® (CTO®)

Kelly Carter, Tallmadge, OH
Glenn Davidson, Bloomfield, NJ
Victor Fitz, Wichita, KS
Mark Flynn, Topeka, KS
David Jackson, Conroe, TX
Dennis Lamb, Lima, OH
Shawn Likley, Columbus, OH
Derek Maxwell, Newark, OH
Steven Olinghouse, Oklahoma City, OK
Victoria Rhymer, Aurora, CO
Londal Thorpe, Kissimmee, FL
CERTIFIED RADIO OPERATOR® (CRO)
John Jordan, Rocky Mount, NC

AWARDS from page 1

00-258, ET-Docket 02-55, and ET Docket 04-356.

Recipients of the SBE Broadcast Engineer of the Year Award are recognized for making significant contributions to the field of broadcast engineering and for furthering the goals and objectives of the Society. They must be members of the Society and are nominated by their peers.

The 2008-09 SBE **Educator of the Year Award** will be presented to **Fred Baumgartner, CPBE, CBNT**. Baumgartner has served as the program organizer for more than 20 regional Ennes Workshops over the past seven years. He also served as the on-site moderator for most of the workshops.

Baumgartner has continuously contributed his time, expertise and knowledge of the industry to organize quality programs as well as his own time to travel to the programs to serve as moderator.

Baumgartner has been a Trustee of the Ennes Educational Foundation Trust for many years.

He has also rendered a long and valuable service to the SBE on both the local and national level and has written over 100 technical articles. Baumgartner co-authored the original SBE Television Certification Handbook, which has sold over 7,000 copies and he wrote the first SBE Certification Exam for television Master Control operators. And, in 1998, Baumgartner wrote the SBE Guide to Writing Broadcast Station Operations Manuals.

The award for **Best Technical Article, Book or Program** by a SBE Member goes to **Tim Anderson, CSRE, DRB, CBNT** for his article, "Considerations of Elevated IBOC Sidebands, Insight to IBOC" which appeared in *Radio* magazine in its August 2008 issue.

Local chapters have also earned awards based on their own achievements. Some categories recognize two chapters, based on their size. Class A represents those chapters whose membership is less than the national median while Class B are those chapters that have membership greater than the national median.

Best Chapter Website:

Chapter 59 – Kansas City, Kansas

Best Regional Conference:

Chapter 22 – Syracuse, NY

Best Chapter Newsletter:

Chapter 24 – Madison, Wis.

STATISTICAL AWARDS

By class (A= 46 or fewer members, B= 47 or more members)

Most Certified

- A) Chapter 117, Moscow, ID
- B) Chapter 131 Inland Empire

Greatest Percentage Growth

- A) Chapter 139, Reno, NV
- B) Chapter 17, Minneapolis, MN

Highest Member Attendance Percentage

- A) Chapter 136, Rio Grande
- B) Chapter 56, Tulsa, OK

Our thanks to the SBE National Awards Committee.

AM Antenna Computer Modeling Course

Matching Networks and Phasing Course

FM Transmission Systems Course

Voice Telco Networks & Studio Interface Systems Course

8-VSB Course

MORE TO COME!

University
ON-LINE. ON-DEMAND

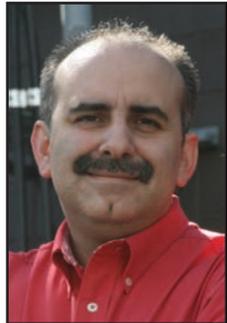


ELECTION *from page 1*

the membership was July 13.

The official ballot was sent via USPS First Class mail on July 27th to all voting members of SBE. That includes Regular, Senior and Fellow members and the voting member representative of each of SBE's Sustaining Member companies.

You are encouraged to take the time to review the descriptions and opinions of the candidates, make your selections and return the ballot to the SBE National Office so that it arrives no later than Thursday,



President

**Vincent Lopez, CEV,
CBNT**
WSYT/WNYS TV
Director of Engineering
Syracuse, NY



Vice President

**Ralph Hogan, CPBE,
DRB, CBNT**
*KJZZ/KBAQ/
SunSounds of Arizona*
Director of Engineering
Tempe, AZ



Secretary

**Ted Hand, CPBE, CBNT,
AMD, 8-VSB**
*WSOC-TV/DT;
WAXM-TV/DT*
Chief Engineer
Charlotte, NC



Treasurer

**Andrea Cummis, CBT,
CTO**
*Broadcast Technology
Consultant & Project
Manager*
Media Project Partners
Roseland, NJ

August 27. Use the special election return envelope provided. Allow at least five business days for your ballot to reach the National Office. Allow two weeks if you are outside the United States. Please mail early. Each year a number of ballots arrive after the election is over and consequently cannot be included in the tabulation.

The ballots will be tabulated the night of August 27th by the official Board of Tellers consisting of members of Chapter 25 in Indianapolis and central Indiana.

Candidates will be notified the following day of the results. Those elected will take

Director Candidates



Michael Englehaupt, CBT
KPIX-TV/KBCW-TV
Director of Broadcast
Operations & Engineering
San Francisco, CA



**Mark Heller, CBRE,
CTO**
*WTRW Incorporated/
WGBW Radio Station*
President, General
Manager & Chief
Engineer
Two Rivers, WI



James E. Leifer, CPBE
*Clear Channel
Communications -
Palm Beach*
Director of Engineering
and IT
West Palm Beach, FL



**Jerry Massey, CPBE,
DRB, AMD, 8-VSB,
CBNT**
*Entercom
Communications, Inc.*
Corporate Regional
Engineer, Southeast
Greenville, SC

office following an induction ceremony held during the SBE National Meeting on October 7, in Verona, N.Y. The National Meeting is being held in conjunction with the Broadcast & Technology Expo, sponsored by Chapter 22 of Central New York State.

Information about each candidate and their responses to questions about the Society will be included in the official ballot packet. If you don't receive a ballot by August 5, please contact Holly Essex at the National Office at (317) 846-9000 or [hessex@sbe.org](mailto:hsex@sb.org).



David Priester, CPBE
*Roy H. Park School of
Communications,
Ithaca College*
Director, Technical
Operations
Ithaca, NY



**Marcelo Sanchez,
CPBE**
WFOR/WBFS-TV
Director of Broadcast
Operations &
Engineering
Doral, FL



**Chriss Scherer, CPBE,
CBNT**
Radio Magazine
Editor
Overland Park, KS



Joe Snelson, CPBE
*Meredith Broadcasting
Group*
Director of Engineering
Henderson, NV

Chapter 22 will host National Meeting at Turning Stone Resort and Casino

The 2009 National Meeting of the Society of Broadcast Engineers will be held at the Turning Stone Resort and Casino, located in Verona, N.Y. and will be hosted by Chapter 22 of Central New York State. The National Meeting is being held in conjunction with Chapter 22's 37th annual Broadcast & Technology Expo. The dates are October 6-7.

The Broadcast & Technology Expo is a two-day event that includes the largest broadcast equipment show in the north-east and broadcast technology workshops. Chapter 22 and SBE National invite any and all SBE members and others interested in broadcast technology to attend. All activities will be held at the Turning Stone Resort.

The schedule for the National Meeting begins on Tuesday, October 6 with a meeting of the SBE Certification Committee from 2:00 pm to 4:00 pm. The regular fall meeting of the SBE national Board of Directors will be held beginning at 6:00 pm and will run until about 10:00 pm.

National activities on Wednesday, October 7 include the annual SBE Fellows Breakfast, from 8:00 am to 9:00 am. All SBE Fellows are invited to attend and will be guests of the SBE. SBE National officers and the Chapter 22 chairman and convention chairman are also invited. A special invitation will go to this group in late August and reservations are required.

A special focus group will meet at 9:30 am for one hour to discuss how to attract those who work in station I.T. positions to membership in the SBE. I.T. people interested in participating in the focus group are asked to contact John Poray at the SBE National Office, (317) 846-9000 or jporay@sbe.org.

The third annual National SBE Webcast will be held beginning at 2:00 pm from

the Events Center arena of the Turning Stone Resort and Casino. This program, scheduled to last approximately one hour, will be streamed to the Internet so all members will have a chance to participate. A portion of the program will be devoted to questions from viewers posed to the SBE national leadership. Other portions of the program will include live remotes from the trade show floor. (see page 3).

The SBE Annual Membership Meeting will be held from 4:00 pm to 5:00 pm and will include the introduction of the SBE Membership Drive Grand Prize winner, Steve Pietras of Toledo, Ohio and the induction of the new national officers and directors who will serve on the Board of Directors.

SBE National will join in with Chapter 22's big post-exhibits reception from 5:00 pm to 6:30pm. The reception will include hors d'oeuvres and the Tommy Bridges Band.

The finale of the National Meeting will be the SBE National Awards Dinner from 6:30 pm to 8:45 pm. The dinner program will include a special guest speaker, the presentation of the SBE Broadcast Engineer of the Year Award to Craig Strom, Assistant Director of Engineering at WLS-TV in Chicago and the SBE Educator of the Year Award to Fred Baumgartner, CPBE, CBNT, of Elizabeth, Colo. at Qualcomm's Flo-TV. Two members will be recognized with the highest membership rank awarded by the SBE, the SBE Fellow;



Turning Stone Resort and Casino will hold the 2009 SBE National Meeting

John Heimerl, CPBE of Suffolk, Va., chief enterprise officer for the Hampton Roads Education Telecommunications Association, Inc. and Christopher Scherer, CPBE, CBNT of Overland Park, Kan., editor of *Radio* magazine.

Chapters and individual members will also be recognized during the dinner for best technical article, best chapter newsletter, website, regional conference, most certified chapter and chapters with the greatest percentage growth and highest average member attendance at chapter meetings.

The Chapter 22 Broadcast & Technology Expo begins Tuesday the 6th with a golf outing and dinner at one of Turning Stone's great courses. Activities on Wednesday the 7th begin with a free continental breakfast. Exhibits open at 8:30 am and will feature the latest in broadcast, electronic media production, electronic presentation and communication technology; displayed by over 100 exhibitors within the 29,000 square foot

In the Circle ...

a snapshot of an SBE Member

Anthony Guerra, CSRE, CBNT, CBT

Senior Broadcast Engineer, Rogers Media Broadcasting Limited
 Toronto, Ontario, Canada
 Joined SBE in 1999

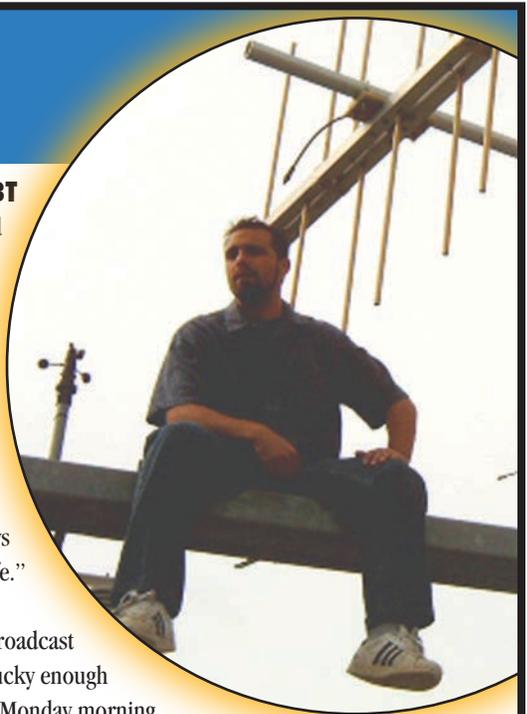
Involvement with SBE: I enjoy the opportunity to take exams and other courses/seminars has been beneficial to my career.

Pictured here: Taking a breather and enjoying the view after assembling a directional antenna to receive our backup FM transmitter site.

Job Satisfaction: I get to play with toys, and it is a different toy everyday. My father always said, "Do what you love, and you'll never work a day in your life."

Getting Started: A co-op position with Rogers when I was in college got me interested in broadcast engineering. I wanted in, and never looked back. I finished my final exam on a Friday, and was lucky enough to be at work on Monday morning

When I'm not working: Away from work, my kids keep my wife and me smiling! I enjoy A/V editing and production at home, and still hop onto my drumkit when time and kids allow.



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 Contact: Greg Kelish
 gkelish@tower-tci.com

Mid West—Dallas TX

Ph: 469-644-2215
 Contact: Jassen Hahn
 jhahn@tower-tci.com

East Coast-

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 Columbia, SC 29212
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 Contact: Jean Lecordier
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NATIONAL from page 12

Turning Stone Convention Center arena. Exhibits will run through 4:30 pm. Technical Workshops will begin at 9:00 am and run until 4:00 pm. A buffet lunch will be provided from Noon to 1:30 pm for a small charge.

Following the SBE National Membership Meeting (4:00 pm to 5:00 pm) the Chapter 22 Reception, mentioned earlier, will begin at 5:00 pm and run until 6:30 pm. The continental breakfast, exhibits, workshops, reception and the chapter's

hospitality suite are all free to attend. Registration is required and you are encouraged to do so in advance. Register at the Chapter 22 website, <http://www.sbe22expo.org>.

A limited block of rooms have been set aside at Turning Stone Resort and Casino for quests and exhibitors to use should you desire overnight accommodations. The special SBE event rate is \$108 plus tax, single or double occupancy. Contact Turning Stone directly at 1 (800) 771-7711 and specify the SBE Expo event. Rooms are reserved for a limited

time and are available on first come, first serve basis.

Tickets for the SBE National Awards Dinner (a great bargain at just \$14 each) are available to order on-line at the SBE website, www.sbe.org/cal_conv.php or by calling the SBE National Office, (317) 846-9000 between 8:30 am and 4:30 pm EDT, Monday through Friday.

We hope to see many of you at Turning Stone for this year's SBE National Meeting and the Chapter 22 Broadcast & Technology Expo.

CERTIFICATION from page 8

on the program. Those members with new certifications are mentioned and congratulated for their efforts. Any classes starting in the next month are mentioned and members seeking a certification are able to request a class if one is not scheduled. If three or four students show an interest, a class will be formed up for the next cycle.

All of this preparation leads to the all important test day. It is important to set the test taker up for success with a well furnished library of current reference material as published by the SBE with each exam cycle. Chapter 131 holds a morning and afternoon session to best accommodate the 24-hour work schedule of broadcasters.

The formula is simple, by stressing the importance of certification and

education, and assisting the engineer as much as possible, qualified candidates are able to successfully meet the program objectives. By

investing in the employee's education, a facility gets a better trained employee. Better trained operators and engineers are more productive and have more successful careers.

* * * * *

Paul is a retired US Navy Master Chief Petty Officer currently working for the American Forces Network Broadcast Center as a project engineer helping to provide radio and television programming to the best (armed) customers in the world, the US military and DoD civilians, in 166 countries around the world and to the ships at sea.

* * * * *

Note from the Certification Director: We would love to hear from you. What do you do at your chapter to promote SBE certification? E-mail me at mclappe@sbe.org

**SBE Certification
2009-10 Exam Schedule**

Dates	Location	Application Deadline
August 7-17, 2009	Local Chapters	CLOSED
November 6-16, 2009	Local Chapters	September 18, 2009
February 5-15, 2010	Local Chapters	December 31, 2009
April 13, 2010	NAB	March 26, 2010
June 4-14, 2010	Local Chapters	April 16, 2010
August 6-16, 2010	Local Chapters	June 4, 2010
November 5-15, 2010	Local Chapters	September 17, 2010

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The Society of Broadcast Engineers would like to welcome its newest members to the organization:

New Members

Nick R. Aslan - Tamarac, FL
Gary E. Becknell - Chesapeake, VA
Joseph DiFrisco - Patterson, NY
Steven D. Fisher - Longview, WA
Matt Howey - Hazleton, PA
Jim Laniewski - Sweet Valley, PA
Robert P. Lenc - Grand Junction, CO
Thomas L. Miller - Fort Bragg, NC
Edward P. Stofferahn - Zimmerman, MN
Stephen Wade - Moreno Valley, CA
Dale A. Daley - Saint Cloud, MN
Brian A. Marshall - Hyde Park, VT
Bryant C. Mothershed - Tucson, AZ
Christopher O. Anderson - San Antonio, TX
John C. McWilliams - Meadville, PA
Paul M. Ford - Portsmouth, VA
Florentin Polmolea - Santa Maria, CA
Kevin Rafferty - South Bend, IN
Aaron Read - Geneva, NY
Gerhard Straub - La Plata, MD
Stephen P. Wong - Tsing Yi, Hong Kong
Syed S. Adil - Karachi, Pakistan
Bilal Hasan - Karachi, Pakistan
Jonathan G. Hines - Winona, MN
Kevin P. Kaminski - Bronx, NY
Michael Kruse - Charleston, WV
Michael L. Guidotti - Bear, DE
Dave C. Hassell - San Diego, CA
William G. Mangum - Harpswell, ME
Michael T. McMahon - Goodlettsville, TN
Michael L. Stockwell - San Jose, CA
James J. Taylor - Herndon, VA

Jeff T. Crews - Lake Wales, FL
Brandon Graham - Largo, FL
Curtis Kirk - Tyler, TX
Leo Velazquez - Chicago, IL
Ed Walden - Mt. Laurel, NJ
Andrew M. Bloustein - Chicago, IL
Dennis J. Christensen - Keller, TX
Gregory H. Glaser - Los Angeles, CA
Steven Pingelski - Cohoes, NY
Andy Singer - Tewksbury, MA
Asa F. Sourdiffe - Colchester, VT
Thomas Row - Boise, ID
Katy Templeman-Holmes - Los Angeles, CA
Leung Wai Kei - Tsuen Wan, Hong Kong
Matthew Dombard - Huntingdon Valley, PA
Dimitar Mateev - Plovdiv, Bulgaria
Lex Robison - Merrillville, IN
Frank Roccisano - Kings Park, NY
Chris Williams - Sarasota, FL
Chris Neuman - Agua Dolce, CA
James E. Allen - Austin, TX
Zachary S. Kaufman - Hutchinson, KS
Joshua M. Wyatt - Ft. Bragg, NC

New Student Members

Flosi Bjarnason - Calgary, Alberta, Canada
Marc Cyr - Calgary, Alberta, Canada
Louis DeNomme - Edmonton, Alberta, Canada
Brock A. Huska - Calgary, Alberta, Canada
Shawn B. Nichol - Calgary, Alberta, Canada
Romika Prasad - Calgary, Alberta, Canada
Victor Quintero - Calgary, Alberta, Canada

Schylar L. Wood - Franklin, IN
Jarid A. Carmony - San Antonio, TX
Michael A. Jones - San Antonio, TX
Michael C. Calpo - Fairfield, CA
Danielle Lawrence - Silver Spring, MD
Adam T. Bobay - Mason, OH
Rafael A. Figuereo - Dorchester, MA
Abigail Carter - Kent, OH
Richard E. Lewis - Bel Air, MD

New Associate Members

Poon Man Lai Carrie - Shatin, Hong Kong
Sid Guel - San Antonio, TX

Reinstated Members

Samuel A. Wallington - Antelope, CA
Edward P. Didier - Ft. Wayne, IN
Arthur A. Garcia - Huntington Park, CA
Chon C. Gammill - Grand Prairie, TX
Timothy J. Annett - Topeka, KS
Hong K. Yi - APO, AE
Christopher W. Johnson - Clanton, AL
Michael A. Stark - Albuquerque, NM
David G. Meadows - San Diego, CA
Ray H. Lufkin - Clearwater, FL
Philip A. Muller - Houston, TX
Billy R. Volek - Sioux Falls, SD
Robert D. Butler - Dallas, TX
David C. Ostmo - San Antonio, TX
Darrell G. Vick - Summerville, SC



Record chapter rebates

--- a challenge to other chapters?

BY John L. Poray, CAE

SBE Executive Director

Back on June 1st of this year, the SBE National Office mailed rebate checks to 77 qualifying SBE chapters. A total of \$38,363.80 will be shared by these chapters; money used to support chapter activities. This is the greatest rebate dollar amount ever distributed and reflects the particularly strong year that 2008 was for broadcast engineers joining the SBE.

During 2008, a total of 880 new, reinstated or former members joined the Society. Of that total, 529 were first time members, 150 were reinstated (had not paid their dues on time but did so later in the year) and 224 were returning members (those who had been members in the past but not any time in the last year).

Understanding how the rebates are computed for each chapter provides an explanation as to why the rebate total reached an unprecedented level. Chapters that provide documentation to the National Office which confirms they have held five or more meetings in the calendar year are eligible for a rebate. That rebate is paid the following June 1. The documentation must include an account of what happened at the meeting, such as chapter business items, program/guest speaker, recognition, etc., as well as a copy of the list of people who attended the meeting.

Most chapters meet far more than five times per year so this is typically not a difficult bar to hurdle. Meeting at least five times per year does indicate that a chapter is meeting a minimum level of quality programming for the local membership.

Qualifying chapters receive an amount equal to 15% of the annual dues paid to National by Regular, Senior and Associate members of that chapter. At the current \$63 annual membership dues level, that comes to \$9.45 per member. Chapters also receive an additional \$5.00 for each new member who joined during the year and was assigned to that chapter. The record 880 new members in 2008 pushed the rebate total to its all-time high. Chapter membership numbers as of December 31 each year are used to compute each chapter's rebate amount.

Having 77 chapters qualify for rebates this year is an impressive number, but that still left 36 chapters that did not qualify. Some of those met five or more times but didn't provide documentation, but most of the others did not meet five times and some of those, not at all. I would encourage the members of those chapters to use the success of the others as inspiration to get their chapters moving again.

Times are tough and the time available for many of our members has been

stretched very thin. But no time is better or more important than now to provide the forum for learning, networking and fellowship that an active SBE chapter provides to its local members.

Resources designed to help create and administer quality programming are available to all chapters. The SBE Website, on the "Chapter Info" and "Chapter Administration" pages, provides a long list of program ideas to help you build your monthly program around. There are links to national board members (each chapter has a board member assigned to them to serve as their official link to the Board) and staff who can help provide ideas and suggestions about building a better chapter and administrative forms to help chapters report their meetings, attendance and annual elections. There are also links and instructions about how to properly use the SBE logo on chapter materials and a web tool kit, to help you build a chapter website. The SBE Chapter Operations Manual provides a complete description on how to organize and operate a chapter.

To those chapters who qualified for a rebate this year, our congratulations to you for providing a quality program to the local SBE members in your area! To the others who missed out this year, we hope you'll take the challenge to build your chapter program in 2009 and be among those that qualify for a rebate on June 1, 2010.

New SBE University Course:

Voice Telco Networks and Studio Interface Systems

The latest offering within the SBE University series of on-line, on-demand Web- courses is now available. Voice Telco Networks and Studio Interface Systems will be of interest to those in both television and radio station settings.

Telco lines and circuits are integral parts of most broadcast installations. We use regular phone lines for talk shows and contests, we use ISDN lines for remote broadcasts and STL backup, and we use T1 lines for STL applications and business telephone service. The broadcast engineer must have a good understanding of the various types of lines and protocols in order to deal with the telephone companies. It is also helpful to understand telco terms and “lingo” so that he or she can “speak the same language” when talking with testers, installers and field repair people.

This course, written by Steve Church of Telos Systems, provides a complete overview of all these topics, giving the student a working understanding of how the signal gets from end to end, how to troubleshoot telco problems and how to properly interface broadcast equipment to the telco world.

There are eleven chapters in the course.

Table of Contents

1. Introduction to Voice Telco Networks and Studio Interface Systems
2. Overview
3. Analog (POTS) Telephone Service – Part 1
4. Analog (POTS) Telephone Service – Part 2
5. Digital Switched telephone Service
6. Special Services for Broadcast Stations
7. VoIP Interworking with the PSTN (Public Switched Telephone Network)
8. The Cellular Mobile Network
9. Broadcast Interfacing
10. Troubleshooting
11. Summary of Voice Telco Networks and Studio Interface Systems

There are several quiz questions prior to most of the chapters to help the student understand what the chapter covers and help them to understand how much they already know.

SBE University courses are available 24 hours a day, seven days a week and are all completed independently. They are similar to text books. You register by going to the SBE website, www.sbe.org/education/seminars and clicking on the course title. You’ll be taken to a course description page that also has a link to the registration page.

Once registered, you may come and go within the course as often as you like. The course will remember where you left off but you also have the freedom to move about the entire course at any time.

There is a special introductory price for the new Voice Telco Networks and Studio Interface Systems Course; just \$59 for members of the SBE and \$79 for non-members. A Certificate of Completion from the SBE is available to those completing the course. Completion of the course can also be used towards meeting SBE recertification requirements.

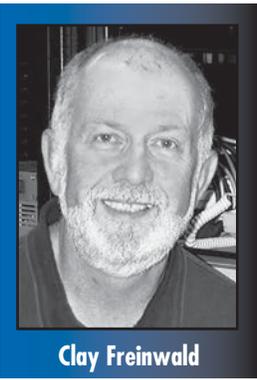
Other courses available in the SBE University series include:

- AM Antenna Computer Modeling
- 8-VSB
- FM Transmission Systems
- Matching Networks and Phasing

New courses will be added to the SBE University series on a regular basis.

The logo for SBE University features a large blue circle with a white center. Inside the white center, the letters "SBE" are written in a bold, blue, sans-serif font. Below the circle, the word "University" is written in a large, black, serif font.

University



EAS Update

BY **Clay Freinwald, CPBE**

SBE EAS Committee Chairman

EAS has, historically, been delegated to the engineering department. It's no secret that changes in the world of EAS will impact us all. I will try and get you up to speed in what's taking place and answer questions that you might have.

THE SBE ROADMAP

Since the release of the FNPRM there have been gatherings, meetings and summits to discuss what this all means. Wishing to help this process, the SBE EAS Committee, in late 2008, developed a 'Roadmap'. (Available to all on the SBE Web Site) This document outlined a strategy to implement the Common Alerting Protocol within a next generation Emergency Alert System.

ECIG

The 'Roadmap' calls for a number of working groups to deal with various tasks. Sensing that manufacturers of EAS equipment could be very helpful in working on how the CAP should work with future EAS equipment, they formed a working group dubbed ECIG (Pronounced E-SIG). The ECIG created what is called an EAS-CAP Profile. This group's work output was passed on to FEMA and, is now in the hands of OASIS, the standards setting organization. Two members of the SBE EAS Committee participated in this group. (see <http://www.oasis-open.org/home/index.php>)

CAP

It's important to understand what CAP

is not. CAP is not a new EAS system. CAP is a subset of the XML language to generate public warning messages for all systems and devices that transmit messages to the public. (See- <http://www.incident.com/cap/what-why-how.html>)

IPAWS

Broadcast EAS is just a part of a larger process leading to the integration of a number of public warning systems. IPAWS, meaning Integrated Public Alert and Warning System, is best described as a system of systems. Not only is our familiar EAS system going to be updated, but we will be joined by other systems in the role of alerting the public. I encourage you to read more about IPAWS on the Web. (See - <http://www.fema.gov/emergency/ipaws/>)

FEMA WORKING GROUPS

Early this year FEMA announced formation of a Practitioners Working Group (PWG). This group has a number of SBE Members, as well as members of the SBE EAS Committee who participate on a regular basis with representatives of State, Local and Tribal government entities. The PWG's purpose is to inform FEMA IPAWS managers of technological trends, use of CAP devices etc. The PWG will also help review and validate existing requirements for the IPAWS CAP v 1.1 Profile which will feed into the standards development process... Bottom line – dealing with the integration of the technology being developed. The good news is that FEMA is now asking for stakeholder assistance and input. It's worth noting that they have acknowledged that they are making use of our SBE Roadmap. Thus far this group has been meeting exclusively via teleconference. Recently FEMA

indicated that in-person meetings may be called.

More recently another work group has been started. The stated purpose of this effort is to better integrate the IPAWS program and the role of industry engagement and adoption of the CAP profile with existing and up-and-coming products.

THE RECENT EAS SUMMIT

The most recent EAS Summit, held in Washington D.C. in late March, was the fifth such event sponsored by NAB and NASBA. It was, perhaps, the most productive. Participating was, for the first time, Wade Witmer, of the FEMA IPAWS office. He was joined by Walter Florence, also from FEMA, as well as Ken Moran and Tom Beers from the FCC.

One topic that dominated most conversations was the role that FEMA is to play in adopting the CAP and how that triggers the requirement that new CAP-Capable EAS equipment must be purchased. There appeared to be general agreement that this process outlined in the FNPRM, needs to be adjusted. It's possible that there will be an official filing with the FCC to alter this process.

THE SBE-EAS SESSION AT NAB

I invited Wade Witmer from FEMA to address the annual SBE EAS meeting in Las Vegas to explain where this process is going. Accepting our invitation, Mr Witmer was greeted with a standing room-only meeting.. He outlined what many believe will be a more thoughtful and constructive process. This session was recorded and is available as a podcast on the SBE Web Site.

Here are highlights from his comments:

- Future delivery of public warning messages from government to broadcasters will be via some sort of IP network using multiple servers. Just how this will be configured has yet to be determined. FEMA says they will build this national CAP service.
- Some of this will involve leased circuits, may well involve other existing systems.
- The FEMA IPAWS Vision includes State and Local connectivity
- FEMA is setting up a Conformance Lab to test new EAS Equipment
- FEMA is performing interviews and inventories of existing capabilities to be able to integrate existing CAP-based EAS Systems
- They are working on a study on RBDS to communicate during emergencies
- Witmer stated that if there is concern over the 180-day clock issue the FCC is not opposed to petitions to modify that timeline.

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THE TO DO LIST –

In the view of the SBE EAS Committee, there are a number of things that need to be resolved prior to rolling out a new EAS system -

The CAP-to-EAS translation

We must work to assure that tomorrow's CAP messages are 100% compatible with today's SAME based EAS to provide seamless public warning.

New FCC Rules

Broadcasters are regulated by FCC rules. Today's Part 11 will need substantial changes to incorporate the changes that are forthcoming.

Infrastructure, Origination, and Dissemination

There is much work to be done to define, construct and test the systems that will connect National, State and Local sources of emergency messages to those systems that reach the public.

Security

With the apparent shift to IP based systems for interconnection of sources and distributors, it's vital that new

systems be secure and immune to troublemakers.

Credentialing

A mechanism needs to be created that will prevent un-authorized use.

Training

Training is needed, at all levels. Warning originators, EAS operators, and EAS users otherwise known as the public.

Integration with NWS

As we know, the vast majority of EAS messages are related to weather. Integration, within IPAWS to include the National Weather Service and their Haz-Collect system needs to be completed.

MORE INFORMATION ?

The best place to stay updated on this fast changing issue is by being a subscriber to the SBE EAS Exchange. Subscription info is on the SBE Web Site. Feel free to email me at k7cr@blarg.net with your thoughts and suggestions.

SBE IRLP HAMnet now streamed

SBE has another way for Amateur Ham Radio Operators who are members to communicate utilizing the Internet Repeater Linking Project or "IRLP" and a local Amateur radio repeater. And we have just added a new feature for the net either for hams or SBE members who may not be amateur operators. We are now STREAMING the net (and the WA2YZT repeater) online for those who can't get on the radio thanks to WAØTKO in Denver, at <http://denver-sbe-net.ham-radio-op.net>. This is a great opportunity to listen in even if you are not a ham or just an interested SBE member.

Full details at www.qsl.net/ke0vh/SBEhamnet.html

2009 Membership Drive comes to a close

The 2009 Membership Drive has come to a successful close. The SBE National Office would like to thank the members who recruited new members. All participants are winners, earning \$5 off their 2010 dues for each new member they recruited (up to \$25). Below is a complete list of winners drawn June 27 at the SBE Executive Committee Meeting held in Indianapolis, Ind.

2009 PRIZE WINNERS

GRAND PRIZE:



Steven Pietras – Toledo, OH

- Trip to the '09 SBE National Meeting in the Turning Stone Resort & Casino in Verona, NY October 6-7
- 40" Sony HDTV 1080i

FIRST PRIZE

Joseph Glynn – Old Forge, PA

- Panasonic Blu-Ray Player
Courtesy of Panasonic

SECOND PRIZE

Paul Hunter – Camarillo, CA

- Eton E1XM AM/FM Shortwave/XM Ready Radio
Courtesy of Westwood One

Shawn Zubrick – Rowlett, TX

- Eton E1XM AM/FM Shortwave/XM Ready Radio
Courtesy of Westwood One

Michael Patton – Baton Rouge, LA

- Eton E1XM AM/FM Shortwave/XM Ready Radio
Courtesy of Westwood One

James Alexander – Wildomar, CA

- Eton E1XM AM/FM Shortwave/XM Ready Radio
Courtesy of Westwood One

OTHER PRIZES

Jon Morgan – St. Charles, IL

- Donated Prize
Courtesy of Harris Corp.

John Landry – Hastings on Hudson, NY

- Pocket Size External Hard Drive
Courtesy of Broadcast Microwave Services, Inc.

Rod Roberts – Shawnee, OK

- Closed Back Headphones
Courtesy of Broadcast Supply Worldwide

Larry Wilkins – Prattville, AL

- Closed Back Headphones
Courtesy of Broadcast Supply Worldwide

Jack Davis – Sacramento, CA

- Closed Back Headphones
Courtesy of Broadcast Supply Worldwide

Pablo Garcia – Burbank, CA

- Blu-Ray Demystified
Courtesy of McGraw-Hill

Steven Schmitt – Quincy, IL

- Blu-Ray Demystified
Courtesy of McGraw-Hill

Gene Powell – Shreveport, LA

- Practical Array Processing by Mark Sullivan
Courtesy of McGraw-Hill

Bruce Zieminski – Riverside, CA

- GPS and Galielo
Courtesy of McGraw-Hill

Douglas Alman – San Marcos, CA

- Space Based Radar
Courtesy of McGraw-Hill

Gary Stigall – San Diego, CA

- Delivering Carrier Ethernet, by Abdul Kasim
Courtesy of McGraw-Hill

Anthony Gervasi – Burlington, NJ

- Logo Golf Shirt
Courtesy of Continental Electronics

Timothy Kelly – Alexandria, VA

- Directional Antennas Made Simple
Courtesy of Jack Layton

Michael Bach – Portland, OR

- Fleece Pullover
Courtesy of Katrein Scala Division

Kenneth Sell – Phoenix, AZ

- Fleece Pullover
Courtesy of Katrein Scala Division

Lewis Miller – San Antonio, TX

- STABILINE Uninterruptible Power Supply
Courtesy of Superior Electric

Richard Pogson – Fairview, PA

Mark Persons – Brainerd, MN

Jack Davis – Sacramento, CA

Jeff Smith – Monroe Township, NJ

Douglas Alman – San Marcos, CA

Brad Bodnar – Stockbridge, GA

Daniel Slentz – Tamarac, FL

William McKee – Houston, TX

Robert Henning – Mishawaka, IN

David Brawdy – Pullman, WA

Gene Powell – Shreveport, LA

Joe Dimaggio – Wethersfield, CT

Kent Winrich – Fuquay-Varana, NC

James Boyd – Tualatin, OR

Chris Gunnufsen – Norfolk, VA

Michael Patton – Baton Rouge, LA

Michael Brown – Portland, OR

Jeffrey Koscho – Clinton, MD

Jerry Shorter – Menifee, CA

Kenneth Stiver – Amherst, NY

Jim Krueger – Quincy, IL

Frederick Sperry – Madison, WI

Ken Benner – Tucson, AZ

Marlon Baskerville – Portsmouth, VA

Harold Schardin – Forestlake, MN

- Adjustment Tweaking Tools
Courtesy of Continental Electronics

SBE would like to thank the organizations and companies, who through the donation of prizes, helped make the 2009 Membership Drive possible.



Members on the Move

Alan Lane, CSRE, AMD, DRB, has been named Engineering Manager of the CBS Radio 7 station cluster in Charlotte, NC.

Daniel Slentz accepted a new position with KERA TV/FM in Dallas/Fort Worth, Tex.

Steve Tuzeneu, CBT joined the WAY-FM Engineering Team as their Corporate Staff Engineer in Colorado Springs, Colo.

If you or someone you know moved, changed positions, or has been honored in some way in the broadcast engineering industry, submit details to Members on the Move at hessex@sbe.org or to Attn Holly Essex, 9102 North Meridian St. Suite, 150, Indianapolis, IN 46260

SBE Lifetime Achievement Award

Nominations are still open for the SBE Lifetime Achievement Award. This award recognizes and pays tribute to individuals for their dedication, lifelong achievement and outstanding contribution to the broadcast industry. Nominees must be SBE members in good standing and have been active for 40 years or more in the broadcast engineering industry or a closely allied field that benefits broadcast engineering. Nominations must come from SBE members in good standing, and will include the endorsement of three other SBE members in good standing. Nominations for this award can be made at any time, but no more than one recipient will be named in a given year.

Awards are determined by a ¾ majority vote of the SBE Board of Directors, based upon recommendations made by the SBE Awards Committee.

Nominations should include the nominee's city and state, career biography and a detailed written description of the nominee's contributions. Nominations to be considered by the SBE Board of Directors at their next meeting, Oct. 7, 2009 should be submitted to the SBE National Office by September 4, 2009. For additional information, please contact Mark Simpson, CPBE, AMD, CBNT, Awards Committee Chair, at mark.simpson@citcomm.com or Megan Clappe at (317) 846-9000 or mclappe@sbe.org.

ENNES

EDUCATIONAL
FOUNDATION TRUST

The Ennes Educational Foundation Trust would like to thank the following supporters for their scholarship funds contribution:

The Ennes Educational Foundation Trust offers scholarship, presents educational programming and provides grants for educational projects that benefits broadcast engineering and the broadcast engineer. To make a tax-deductible donation, make your check payable to the Ennes Educational Foundation Trust and mail it in care of the Society of Broadcast Engineers, 9102 North Meridian Street- Suite 150, Indianapolis, IN 46260.

Harold Ennes Scholarship Fund

Chapter 35, Kentucky
Chapter 24, Madison, WI
Chapter 122, Youngstown, OH
Robert Sleight, Apex, NC
Tom Weber, Indianapolis, IN
Karl Lahm, Lake Villa, IL

Robert Greenberg Scholarship

Chapter 35
Chapter 24, Madison, WI
Tom Weber, Indianapolis, IN

Youth Scholarship

Chapter 35
Chapter 24, Madison, WI
Al Box, Folcroft, PA
Sam Caputa, St. Louis, MO
Tom Weber, Indianapolis, IN
Dick Pickens, Spicewood, TX
Chon Gammill, Grand Prairie, TX

Questions or comments?

Contact the
SBE National Office at
(317) 846-9000

Office hours:
Monday - Friday:
8:30 am - 4:30 pm, EDT
fax: (317) 846-9120
www.sbe.org



Dynamic Host Configuration Protocol (DHCP) server.

question on page 3

Silver Members, those with at least 25 years of membership, are highlighted with a silver box, New Members are listed in blue

ADC Telecommunications Inc.*1998
Anne-Marie Gunderson
(952) 917-3072
End to End Connectivity Solutions

Advanced Test Equipment Rentals*2006
Martin Jahn (800) 404-2832
Test and Measurement Equipment Rentals

Ai*1995
Mark Polovick (607) 215-0653
UHF TV Broadcast Transmitters

American Tower Corporation*2000
Peter A. Starke (781) 461-6780
Broadcast Tower Development/Construction/Management

Anixter*2005
David Ste-Marie (800) 995-6158
Audio/Video Cable & Interconnect Products

Anton/Bauer Inc.*2004
Paul Dudeck (203) 929-1100
Battery Solutions for ENG

Audemat-Aztec Inc.*2000
Sophie Lion Poullain (305) 249-3110
RDS Generator, Metering, Monitoring, Remote Control Manufacturer

Autodesk*1998
Christina Shackleton
(212) 338-3888
Digital Content Creation Software

AXCERA*1983
Mike Rosso (800) 215-2614 ext. 101
Television Transmitters & Exciters

Belden Electronic Division*1991
George Stillabower (765) 983-5200
Cable and Connectivity

Beveridge Consulting, Inc.*2006
Gregory J. Beveridge
(720) 810-3464
Broadcast Engineering Technical Consulting

Bexel*2009
Garrick Lewis (818) 565-4314
Calrec

Broadcast Electronics, Inc.*1978
Ray Miklius - Studio Products
Tim Bealor - RF (217) 224-9600
Radio Equipment Manufacturer

Broadcast Engineering Magazine*1984
Bradley L. Dick (913) 341-1300
Journal of the Broadcast Industry

Broadcast Microwave Services, Inc.*1997
Russell Murphy - East
Jim Kubit - West
(540) 932-3660, (805) 581-4566,
(800) 669-9667
Manufacturer, Transmitters, Receivers, Antenna Systems

Broadcast Supply Worldwide*1986
Shannon Nichols (800) 426-8434
Audio Broadcast Equipment Supplier

Broadcasters General Store*2004
Buck Waters (352) 622-7700
One Stop Broadcast Store

CANARE*1991
Luis Sotomayor (818) 365-2446
Audio/Video Interconnect Products

Canon USA, Inc.*1985
Gordon Tubbs (201) 807-3300,
(800) 321-4388 Broadcast Lenses & Transmission Equipment

Chyron Corp.*1992
Carol Keane (631) 845-2031
HD/SD Character Generators & MOS

Clark Wire & Cable*1991
Shane Collins (800) 222-5348
Audio, Video & Remote Camera Cables

COMET North America*2005
Steve Clatterbaugh (214) 235-6596
Capacitors, Variable & Fixed

Communications Laboratories*2008
Jared Maynard (321) 409-9898
Emergency Management Network

Comrex Corporation*1997
Chris Crump (978) 784-1776
Remote Audio Broadcast Equipment

Comsearch*2004
Tim Hardy (703) 726-5651
Frequency Coordination Services,
Continental Electronics

Continental Electronics Corporation*1976
Michael Troje (214) 381-7161,
(800) 733-5011
AM & FM IBOC Transmitters

Crispin Corporation*2006
Brian Gleason (919) 845-7744
Broadcast Automation Solutions

Crouse-Kimzey Co.*2008
Mark Bradford (972) 660-6100
Broadcast Equipment Sales

CUC Broadcast*2008
Michael Johnson
(951) 278-5626
Shared Storage System Integrator

Dataworld*1998
John T. Neff (800) 368-5754
Coverage Maps and Services

Dialight Corporation*2006
Doug Woelher (732) 991-2837
Obstruction Lighting, L.E.D. Based

Dielectric Communications*1995
Jay S. Martin (207) 655-4555
TV & FM Broadcast Products

Digital Alert Systems, LLC*2005
Bruce Robertson (520) 488-8667
IP Based EAS ENDEC

DiskStream Incorporated*2006
Rein Taul
(519) 579-8166, ext. 57
Capsa Video Archive

DSC Laboratories*2002
Michael Kent (905) 673-3211
Test Charts & Illuminators

DTS*2009
Mark Seigle (425) 814-3200

DTVinteractive*2007
Jennifer Jang
(+82) (0)2-3446-2040
Test & Measurement Solution Provider

du Treil, Lundin & Rackley, Inc.*1985
Jeff Reynolds (941) 329-6000
Consulting Engineers

e2v technologies Inc.*1997
Vijay Patel
(914) 592-6050
(800) 342-5338
Klystrons, MSDC IOTs, IOTs, Satcom Amps, TWTs

Econco*1980
(800) 532-6626 or
(530) 662-7553
New & Rebuilt Transmitting Tubes

Electrocrack Enclosure Products*2008
Todd Schneider (714) 776-5420
Racks, Enclosures, Power, Accessories

Empower RF Systems*2008
Jon Jacobs (310) 412-8100
DTV Transmitter & Translator

ENCO Systems Inc.*2003
Don Backus (800) 362-6797
Digital Audio Automation & Delivery

Environmental Technology Inc.*1997
John Cahill
(800) 234-4239, ext. 229
Dehydrators, Deicing Sensor & Controls for Broadcast/FM and Satellite Antennas

ERI - Electronics Research*1990
David White (812) 925-6000
Antennas, Towers, Filters, Combiners

ETS-Lindgren/Holiday EMF Measurement*2003
Dave Seabury (908) 876-5042
RF Safety Instrumentation

Fiber Instrument Sales, Inc.*2009
David J. Porta (315) 736-2206

Floral Systems*2008
Jim Berry (352) 372-8326
Television Broadcast Automation

Freeland Products*1997
Joel Freeland (800) 624-7626
Rebuilt Power Tubes

Frontline Communications Corp.*2000
Doug McKay
(727) 573-0400, ext. 120
Broadcast/Command/HLS Vehicles

Fujinon, Inc.*1986
Thom Calabro (973) 633-5600
Broadcast & Communications Products

Gepeco International, Inc.*1995
Ken Bernd (847) 795-9555
Audio, Video Cable Products

Google Inc.*2005
Scott Bodgan (949) 791-1200
SS32, Maestro, ASP Solutions

Grass Valley*2000
William Powers (404) 929-5007
TV/Film Production & Broadcast Professionals

Harris Corporation, Broadcast Communications Division*1977
Joe Mack (TV), Chris Pannell (Radio), Bob Duncan (Software)
(513) 459-3406, (406) 556-0280,
(719) 439-0130
Broadcast Equipment & Services

HD World*2006
Michael Driscoll (203) 371-6322
HD World Conference & Exposition (Oct. 10-11, 2007, New York)

Holbrook Enterprises, Inc.*2006
Heywood Bagley (208) 468-8797
WireCAD - Serious design tools

Image Video*1997
Dave Russell (416) 750-8872
ext. 230
Under Monitor Tally Display Systems, Monitor Walls, Signal Alarm Systems

IneoQuest*2009
Tom Tucker (508) 339-2497
Video Quality Assurance Solutions

Jay S. Gerber, CBT*1999
(205) 491-6904
Manager, NFL Frequency Organization Group

JDSU*2007
Brigitte Robbins
(919) 338-5061

Joseph Electronics Inc.*2003
Yohay Hahamy
(847) 501-1584
Broadcasters One-Stop Supplier

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

KPFF Consulting Engineers*2004
Madison Batt
(206) 926-0508
Tower Engineering, Inspections Design

L-3 Communications Electron Devices*2003
Steve Bliet (570) 326-3561, ext. 229
Tubes, Power

LBA Technology, Inc.*2002
Jerry Brown (252) 757-0279
AM/MW Antenna Equipment & Systems

LEA International*2004
Carol Rassiier (208) 762-6121
Power Quality Products & Services

Lincoln Financial Media*2007
Don Shaw (704) 374-3639
Media, Communications

LYNX Technik*2007
Steve Russel (661) 251-8600
Broadcast Terminal Equip

Markertek Video Supply*2002
Tom Moretti (845) 246-3036
Audio, Video, Audio Visual Broadcast Supply

Maxell Corporation of America*1991
Patricia Byrne (201) 794-5900
Broadcast Video Products

Micro Communications, Inc.*1998
Frank Malanga (603) 624-4351,
(800) 545-0608
TV & FM Antennas & RF Components

Micronet Communications, Inc.*2005
Jerry Armes (972) 422-7200
Coordination Services / Frequency Planning

Microwave Filter Company, Inc.*2003
Sherry Bell (315) 438-4700
Passive Electronic Filters

Microwave Radio Communications*1991
Nadine Frechette (978) 671-5700
Video Microwave Systems

Microwave Service Corporation*1997
Warren J. Parece (978) 556-0970
Microwave Equipment Rentals/Sales/Service

Middle Atlantic Products*2005
David Amosato
(973) 839-1011, ext. 1197
Enclosures, Power, Accessories, Furniture

Minkin Design Inc.*2005
Jay Minkin (206) 250-7481
System Integration/Design/Documentation

Mohawk*1995
Jamie Silva (800) 422-9961
Wire and Cable

Moseley Associates, Inc.*1977
Dave Chancy (805) 968-9621
RF & TI STLs

National Association of Broadcasters*1981
(202) 429-5340
Industry Trade Association

National Football League*1999
Jay Gerber
Game Day Coordination Operations

Nautel, Inc.*2002
Wendell Lonergan (207) 947-8200
Radio Broadcast Transmitter Manufacturer

Nott Ltd.*2002
Ron Nott (505) 327-5646
Folded Unipole Antennas; Detune Systems; Lightning Prevention

Nucomm, Inc.*1996
John Dulany (908) 852-3700
Digital Microwave Transmission Equipment

NVISION, Inc.*1997
Doug Buterbaugh (530) 265-1000
Routers, Master Control & Terminal Equipment

Orban/CRI*2008
David Rusch (480) 403-8300
Audio Processing

Panasonic Broadcast & Digital Systems Company*1985
Tom Moore (201) 392-6176
Professional Broadcast Equipment

Pasternack Enterprises*2001
Christine Hammond (949) 261-1920
Coax & Fiber Products

PESA Switching Systems, Inc.*1997
Robert McAlpine (800) 328-1008
Routing Switcher Manufacturer

Pike & Fischer*1991
Andy Myers (800) 255-8131, ext. 234
FCC Rules & Regulation

Prime Image, Inc.*1997
Rodney Hampton (408) 867-6519
Digital Audio/Video Equipment

Pro-Bel*2002
Terry Barnham (631) 549 5159
Automation, Routing & Infrastructure

Propagation Systems, Inc.(PSI)*2005
Doug Ross (814) 472-5540
Quality Broadcast Antenna Systems

Pulsecom*2003
Stan Bailey (630) 961-3253
Telco Broadband Audio Transmission

Quintech Electronics and Communications Inc.*2002
Richard E. Bush (724) 349-1412
RF Signal Management

Radian Communication Services Inc.*1986
John McKay (866) 4-RADIAN
Towers, Antennas, TV Transmitter Installation

RCS*2003
Diana Stokey (308) 284-3007
Audio and Video Content Management, Music Scheduling, Radio Automation

RDL*2004
John Gatts (928) 778-9678, ext. 111
Audio, Video, Control & Test Equipment Manufacturer

RF Central, LLC*2005
Jeff Winemiller (717) 249-4900, ext. 222
Digital Wireless Microwave Equipment

RF Extreme, LLC*2009
Don Hoeler
(908) 852-3700 ext 3110

Radiant Communication Services Inc.*1986
John McKay (866) 4-RADIAN
Towers, Antennas, TV Transmitter Installation

RCS*2003
Diana Stokey (308) 284-3007
Audio and Video Content Management, Music Scheduling, Radio Automation

RDL*2004
John Gatts (928) 778-9678, ext. 111
Audio, Video, Control & Test Equipment Manufacturer

RF Central, LLC*2005
Jeff Winemiller (717) 249-4900, ext. 222
Digital Wireless Microwave Equipment

RF Specialities of Texas, Inc.*2008
Don S. Jones (806) 372-4518
Transmitters, Antennas and More

RF Technologies a Ferrite Company*2008
Bill Ammons (800) 634-4075
Television Broadcast Antenna Systems

Richland Towers*2001
David Denton
(813) 286-4140, ext. 6872
Tower Owner/Management

Rohde & Schwarz*2003
Eddy Vanderkerken (469) 713-5322
Broadcast Transmitters, Test & Measurement

ROSCOR Corporation*1998
Tom Voigts (847) 299-8080
DTV System Integration

Ross Video Ltd.*2000
Burt Young (613) 652-4886
Manufacturer, Television Broadcast Equipment

Salzbrenner Stagetec Media Group*2009
Russell Waite (888) 782-4391
Professional Audio Solutions

SCM Construction*2009
Samuel Mitchell (972) 274-5151
General Contractor/Transmitter/Facility Services

SCMS, Inc.*2000
Bob Cauthen (800) 438-6040
Broadcast Equipment- New/Used

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

Secore, Inc.*2005
Jeff Murray (800) 736-2673
Audio/Video Test Equipment

Shively Labs*1996
David Allen
(207) 647-3327 or 888-SHIVELY
FM Antennas & Combiners

Sigmat*2008
Ed Portko (610) 783-6666
Broadcast Equipment Support Sales

Snell & Wilcox, Inc.*1995
John Shike (818) 556-2616
Video Equipment Manufacturer

Stainless LLC/Doty-Moore*2004
Les Kutasi (215) 651-1313
Tower Engineering/Tower Service

Stratos Global Corporation*2006
Folef Hooft Graafland (Eastern USA),
Chris Mott (Western USA)
(888) 766-1313 (USA)
(709) 748-4233 (Rest of World)
Streaming & Voice via Satellite

Sundance Digital, Inc.*2004
Steve Krant (972) 444-8442
Broadcast Automation Solutions

Superior Broadcast Products*1999
Benny Springer (800) 695-7919
Vacuum Tube & Solid State Transmitters

Superior Electric*1995
Michael J. Miga
(860) 585-4552, (800) 787-3532
Power Protection Equipment

Sutro Tower, Inc.*1989
Gene Zastrow (818) 681-8850
Broadcast Tower Leasing

Switchcraft, Inc.*1995
Jim Hoffman (773) 792-2700
Electronic/Electromechanic Components

TC Electronic*2008
Stacey Moran (818) 665-4906
DTV Audio Level Processing

Tektronix, Inc.*1977
Jon Hammarstrom (503) 627-6936
TV Test, Measurement Equipment

Telemetrics Inc.*2008
Jim Wolfe (201) 848-9818

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

Terrestrial RF Licensing Company*2003
Steven Slocum (888) 373-4832
FCC Licensing Services

TESSCO*2008
Scott Palermo (410) 229-1562
STL, Cable Test Equipment

The Durst Organization - 4 Times Square*2004
John M. Lyons, CPBE
(212) 997-5508
TV/FM/Microwave Tower Site

The Whitlock Group*2000
Kevin Thompson (800) 726-9843
Broadcast and Presentation Solutions

Total RF Marketing*2001
Tom Sharkoski (215) 633-1000
Wireless Broadcasting Equipment Rental

Troll Systems, Inc.*2006
Brian Goldberg (661) 702-8900
Broadcast Control Systems

TRON-Tek, Inc.*1993
W.M. (Bill) Grass (888) 819-4877
Part 74 Video Links

TV Magic*2008
Eva Langer
(858) 650-3155
Broadcast Systems Integrator

Unimar, Inc.*2001
Michael A. Marley
(315) 699-4400, (800) 739-9169
Tower Obstruction Lighting Designer, Manufacturer, Distributor

VALCOM*1996
Bill Burtenshaw (519) 824-3220
AM/FM Broadcasting Antennas

V-Soft Communications*2002
Adam Puls (319) 266-8402
Broadcast Engineering Software & Consulting

Ward-Beck Systems Ltd.*2004
Michael Jordan (416) 335-5999
Metering, Monitoring, Distribution, Conversion

Warning Systems, Inc.*2008
Elysa Jones (256) 880-8702
CAP, Warning, Emergency Alert

Westwood One*2006
Conrad Troutman (212) 641-2014
Radio and TV Programming

Wire Wizards Integration*2007
Mr. Mark Guidiere (619) 992-0549
Reliable Specialized Installation Technicians

Wireless Infrastructure Services*2006
Mr. Travis Donahue (951) 371-4900
Broadcast System Integration Services

SCM Transmitter Facilities Construction

Provides the following services:

- Design and Construction of Transmitter Facilities
- Coordination with Disposal or Sale
- Crating/Packaging
- Equipment Inventory Documentation
- Field Cut Transmission Line
- General Contracting
- Generators and Fuel Systems
- Ice Protection
- Installation of Transmitters
- Lightning Protection
- Mezzanines
- Project Management
- Removal & Storage Solutions
- RF Grounding

Quotes contact:

Samuel Mitchell

sam@scm-construction.com

www.scm-construction.com

C: 214-876-9884

O: 972-274-5151

F: 972-274-5159

<http://plans.scm-construction.com>

Sales & Engineering Information

English - Ed Reid

C: 214-215-3349

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BAD AUDIO HURTS RATINGS.

PROBLEM:

February 17, 2009

Dear Station Managers,

This is my !@#%&^ 7th letter of complaint to you about your station's AUDIO PROBLEMS email has not worked, so here is a written letter with my list AGAIN!!!

- 1) One minute I'm watching my favorite comedy (you know the one) and everything sounds fine. Then the next show -- one of those crime dramas -- comes on and the sound effects are blowing me out of my seat with the gun shots.
- 2) And even if you somehow manage to get my shows sounding right, the local news is either too loud or too soft.
- 3) Don't even get me started with sports-- I can hear sports announcers on all the other "sports" channels but not yours
- 4) Most importantly, control the **BLARING LOUD COMMERCIALS**, no one likes these. Even granny can hear them without her hearing aid.

I know I am only a viewer and my concerns are probably not important enough to be heard; but, if you don't fix this problem, I will go and watch another channel or find it on the internet. Is that what you want me to do?

Sincerely,

Joe Schmoe

Indianapolis, IN

Solution:

Install a Linear Acoustic audio processor and we **guarantee** you will never receive another letter like this again.

UpMixing & Audio processing starting at \$6,000.00



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