



# the SIGNAL

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

**AUGUST  
2008**

*Volume 21, Number 4*

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on the web yet?*

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## 2007 National Awards Announced

**T**he Society of Broadcast Engineers has announced the winners of its 2007 National Awards. Winners will be recognized at the Society's National Awards Dinner on October 15, 2008 in Madison, WI. The event is part of the annual SBE National Meeting, which is being held in conjunction with the Wisconsin Broadcasters Clinic, sponsored by Chapter 24 of Madison held at the Marriott Madison West Hotel.

The winner of the SBE **Broadcast Engineer of the Year Award** is **Cris Alexander, CPBE, AMD, DRB**. Alexander has been a member of SBE since October of 1985. He's a frequent contributor to Radio World Magazine and has built many radio stations from the ground up.

Alexander is also a member of the national Board of Directors of SBE and is a member of SBE's National Certification Committee. He has



**"Broadcast Engineer of the Year" Cris Alexander, CPBE, AMD, DRB**

been an active member of SBE Chapter 48 in Denver and currently serves as its Certification Chairman. Alexander holds the Certified Professional Broadcast Engineer, AM Directional Specialist and

*See **AWARDS** on page 14*

## SBE MEMBERS, IT'S TIME TO VOTE!

**B**allots for the annual SBE election of members to serve on the national Board of Directors were mailed at the end of July. Members are asked to vote each year on 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 has been chaired this year by Immediate Past President,

Chriss 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.

The official ballot was sent via USPS First Class mail on July 29th to all voting members of SBE. That includes Regular, Senior and Fellow members and the voting representatives of

*See **ELECTION** on page 12*

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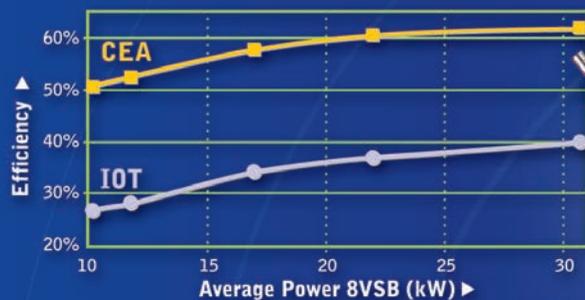
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# Oklahoma City Hosts Ennes Workshop and Broadcast Equipment Trade Show

**S**BE Chapter 85 of Central and Western Oklahoma will be hosting an Ennes Workshop on Wednesday, August 27 from 9:00 am to 5:00 pm. In conjunction with the workshop, the chapter will also be holding a broadcast equipment table-top expo. The event will take place at the Holiday Inn and Suites Oklahoma City North, 6200 North Robinson Avenue in Oklahoma City.

The cost to attend the Workshop is just \$35 for SBE members and \$45 for non-members. Registrations made by August 1st will receive a \$5 discount. Registration is made through the SBE National Office using the form available on the SBE website. Payment may be made by check, payable to, "SBE," or by credit card. The low registration fee includes the Workshop, the exhibits, lunch and breaks.

There will be exclusive exhibit-only time before and after a buffet lunch. SBE Immediate Past President Chriss Scherer, CPBE, CBNT and Executive Director, John Poray, CAE will speak during the lunch hour. Scherer will also serve as moderator for the workshop.

Companies interested in exhibiting should contact Chapter 85 Chairman, Leonard Youngblood at (405) 475-9124 or [youngbl@sbgnet.com](mailto:youngbl@sbgnet.com). Space is limited. Support for this event is being provided in part by the Oklahoma Association of Broadcasters and SBE Chapter 85.

The program will include the following presenters and topics: (for a complete description of the session topics, go to [www.sbe.org](http://www.sbe.org) and click on the Oklahoma Ennes Workshop article on the home page. Use the link to go to the workshop flyer)

## GENERAL SESSIONS

### IMPROVING ENGINEERING EFFICIENCY FOR RADIO AND TV

John Bisset, Broadcast Electronics

### GETTING THAT RAISE

John Bisset, Broadcast Electronics

### KREX - THE REAL WORLD DISASTER RECOVERY

Skip Erickson, Harris Technical Solutions

## BREAKOUT SESSIONS - RADIO

### NOTES ON IBOC POWER INCREASE

Terry Cockerill, Harris Broadcast Division

### HOW MUCH ARE WE REALLY SAVING? NEW RADIO STATION CONSTRUCTION PARADIGMS EXAMINED

Ken Skok, Axia Audio

### TRANSMISSION TECHNOLOGIES AND COVERAGE EXTENSION FOR DIGITAL RADIO

Alan White, Continental Electronics Corporation

## BREAKOUT SESSIONS - TELEVISION

### DTV UPDATE

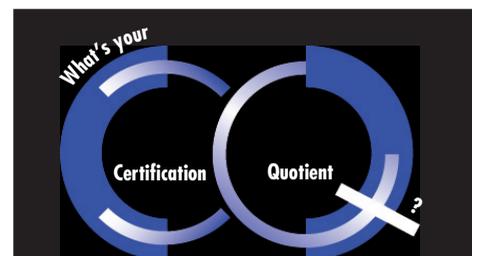
Jerry Whitaker, Advanced Television Systems Committee (ATSC)

### PROJECT MANAGEMENT & SYSTEM INTEGRATION 101

Brad Fisher, Diversified Systems

### IMPROVING DTV COVERAGE THROUGH ON-CHANNEL AND TRANSLATOR TECHNOLOGIES

Richard Schwartz, Axcera



**Q:** Some TV receivers have a polarized plug on the AC cord. What safety hazard can be created by replacing this plug with a nonpolarized plug?

- A) The chassis and, possibly, some exposed metal on the cabinet may become electrically hot to ground.
- B) The cord may overheat
- C) The circuit breaker won't work
- D) None of the above

Question taken from SBE CertPreview. Turn to page 21 for the answer

# Membership: The more you put in, the more you get back.

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

**T**he SBE Strategic Planning committee chaired by our Vice President Vinny Lopez recently commissioned an e-mail survey of SBE members. If you responded, we thank you and appreciate your candor. We received excellent response and have some very useful information. Those results provided some confirmation of facts we believed, but also provided some interesting insights into our member's perspective of the Society and how we've done our work.

Some highlights of the survey:

- The largest percentage of respondents has been in the business for 25 years or more...greater than 50%. Less than 2% have been in the business for 3 years or less. This is no surprise on a few levels. Not just that young people may not be joining our ranks, but also that most of us don't realize the value of participation in this shared effort until we've gotten some experience under our belts and understand how important fellowship and networking is to our success.
- Most of our members have been so for more than 20 years and more than 75% have never let their membership lapse. Again, not surprising. Those that realize our purpose are generally very committed.
- Most of our members are certified; many at the CPBE level. Again; a reflection of the years in the business and the commitment to our shared purposes.
- The large percentage of our members feels our efforts with FCC and government relations, and our frequency coordination programs provide significant value and are important.
- Our ranks are graying...but then

again we know that.

There were many other highlights that I'm sure Vinny will share soon.

We learned some important things about programs you want to see. This information is now a significant tool for our Education Committee as it rolls out new, on-demand webinars that will be available soon.

The most interesting part of the survey, however were the "essay questions" if you will. These were questions that asked "why."

For example: we asked a number question about reasons for letting membership lapse and reasons someone did not get certified. Some of the answers, honestly, disturbed me.

"I don't remember how long but membership gave me no advantage in my employment."

"... never felt a need to become certified."

"Cost of membership vs. job benefits. We have no real benefits on our job resulting from SBE membership or certification."

"Never had an occasion or could see that it would make any difference or have any benefit."

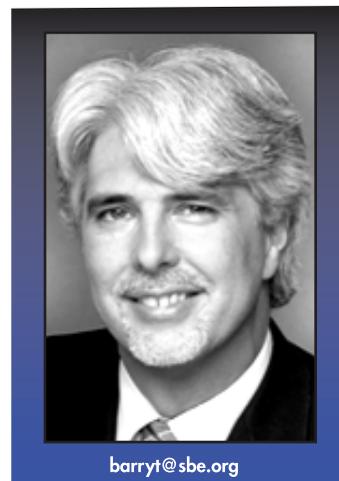
As uncomfortable as that was for me to read, it's important to see how we are perceived. All of our members have their own reasons for membership; and non-members have their reasons as well. When I encounter non-members, I ask them why I sometimes hear the argument "the SBE doesn't offer me anything I need," or "my employer doesn't know anything about the SBE," or "SBE membership doesn't guarantee me a job or a certain pay scale."

One of the messages I tend to belabor are my reasons for knowing SBE membership is important. Certification is a

critical reason as are our education programs. The biggest reason for

me, however, is not a reflection of what the Society can give to me, it's how the Society helps us organize and help ourselves and how I can contribute to that. At the beginning of my career, because of the dearth of formal school programs that teach broadcast engineering and the reduction of engineering staffs throughout the '70s and '80s, there were fewer and fewer opportunities open for me to apprentice under skilled engineers. I sought out people to learn from. In doing so I was recruited by another engineer in my hometown of Columbia, SC, to start an SBE chapter. I saw this originally as an excellent opportunity to get certified, but more importantly, I saw this as an avenue to gather the best broadcast engineers in the market, network with them, and learn from them. I have to tell you that worked out exceptionally well for me. I was able to get assistance and guidance one-on-one from some of the best broadcast engineers in the Southeast as a result.

I moved around the country a lot since then.. In every market where I worked I would seek out the SBE chapter and be involved as much as I could to meet, network, and learn, from my fellow engineers. Along the way I found out how we can share our strength and common experiences to make our lots better. As I began to participate on the national level I discovered just how effective we can be if we share our strength. If we



join with the bright minds that make up our membership we can do great and important things.

Things like our great Certification Program. It's a program that is more than a test that you can "cram for" but a real measure of the current skill level of a broadcast engineer; a reflection of an engineer's continual commitment to improve and develop.

The efforts of our FCC Liaison committee, which has been at the forefront of defending broadcaster use of broadcast auxiliary frequencies.

Another example is our outreach to WUVT, the Virginia Tech campus radio station where, through the extensive dedication of our Immediate Past President Chriss Scherer, Director Dane Ericksen, General Counsel Chris Imlay and proud SBE member Steve Davis we were able to fulfill their engineer's wishes of restoring full power operation and even facilitate a power and altitude increase for the station.

The list goes on.

So as I was reading through some of the responses; I couldn't help but wonder if many people realize – really realize – what we're about? In some the cases I've mentioned, it would seem that the respondent may have a few, pardon the expression, unrealistic expectations. The respondent is expecting that a giant, national organization may solve all his problems. All for just \$63.00 per year and little else.

It doesn't work that way.

For one; we're not a big, faceless national organization. We don't have huge staffs, powerful Washington lobbyists or big budgets.

We're not a union. We are not in the position to institute any effort that would even resemble collective bargaining. We can't pressure employers to pay more, follow certain standards or make industry policy.

We're not a standards organization.

We don't adopt or promote equipment specifications.

Here's what we are:

We are you. The working broadcast engineer; working together to make our jobs easier, our careers more rewarding, and our successes better recognized.

What we are is reflected in the purposes listed on everyone's membership card:

- To promote and advance the Science of Broadcast Engineering

We do this by providing a public means to demonstrate your competence through SBE certification. We do this through the books we publish. We do this through The Signal newsletter and the bi-monthly e-mail newsletter SBENews. We do this also through our seminars and the Ennes Educational Foundation.

On certification: Whenever I hear that a prospective employer did not know about SBE certification and therefore an engineer didn't see the need to be certified, I mourn a missed opportunity. I'm exceptionally proud of my certification. I very deliberately use my certification service marks CPBE and CBNT as part of my name on written material. I've been asked, "what does that mean?" That gives me the opportunity to educate them.

If SBE certification is a prominent part of your resume, and other resumes do not include it, who do you think is going to stand out in the resume stack? Even if the manager has never heard of SBE certification he or she is bound to notice that your resume cites a professional certification and others do not.

- To establish standards of professional education, training and competence for members

Some of the ways we do this is through our certification and accreditation efforts and our work with allied educational institutions like Excelsior College.

- To encourage the exchange of ideas and promote professional standards

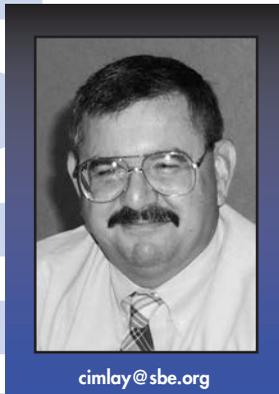
This is the very essence of what makes the SBE important. We have, as part of our national by-laws a Canon of Ethics for broadcast engineers. This is one way to promote professional standards of broadcast engineering. Through our chapter meetings, regional conferences, national meetings, our Hamnets and our online community the SBE Roundtable.

- To represent the needs of members before regulators and the industry.

This element of our purposes often gets framed by our advocacy efforts like those done by our EAS, Frequency Coordination, and FCC Liaison committees. This purpose is so much more. It means we help improve the profile and awareness of broadcast engineers. We help you improve your stature in the industry through an improved group awareness. As broadcast engineers we all know that our invisibility is often the best indicator that we're succeeding. It's also a good way to be taken for granted. My mom used to tell me "toot thine own horn or the same shall not be tooted". This last area is one in which I've taken a great deal of interest over the past few years. I believe we've been able to increase the visibility of broadcast engineering, our Society and your work through the efforts of our Marketing committee and through renewed efforts to publicize how our often silent excellence. We've done well but there's plenty more to do.

None of these purposes indicate that some big organization is going to do these things. These purposes are carried out by our shared efforts. Many hands making light work. Think of all of our 5,900 members working on these purposes in terms of person-hours.

I know I'm preaching to a choir here but, I want you to know that it's not effective to simply be a member. You need to be a participating member. SBE membership can be compared to a bank account. The more you put in, the more



# Government in the Sunshine or Hide the Peanut?

BY **Chris Imlay, CBT**

*SBE General Counsel*

think the FCC's Office of Engineering and Technology is the most important part of the FCC.

No, I am not pandering to you engineers

in saying that. It really is. OET is in charge of domestic spectrum allocations, and the most important job of the FCC is spectrum management domestically. Any rulemaking petition that deals with spectrum allocations instead of service rules for particular radio services goes to OET. OET also handles unlicensed devices and services, and since those are king these days and the bane of most licensed radio services, OET has front-line jurisdiction. I am also a big fan of the current OET Chief, Julius "Julie" Knapp. He is a first class, diligent person and the best guy to run OET that I can think of.

OET is, to me, far more important in the grand scheme of spectrum management at FCC than are the Commissioners, who aren't themselves spectrum management professionals (heck, they are not even telecommunications professionals) and who, in modern iterations, are really political plum job appointees, rewarded for political service, not telecommunications competency. And as you well know if you are a long time SBE member, they don't even have engineers on their professional staffs. So, technical competency falls to OET.

OET can only be a good steward of the spectrum, however, if the Office is left to do what they do without political or other influences. That hasn't happened recently, and the results are disquieting. Some years ago, I was talking to an engineer at the National Telecommunications and Information Administration (NTIA), the Administration's telecommunications policy agency and the administrator of government spectrum allocations. He had recently come to NTIA from FCC. Over coffee, I asked him what the differences were between his work at NTIA and his prior work at FCC. He told me in all seriousness that at NTIA, engineers were assigned issues to study, and they were told the topic and asked to perform a study and report their findings to their superiors at NTIA. At FCC, on the other hand, engineers were asked to perform a study, told what the outcome of the study would be, and then asked to perform the study and report the intended findings to their superior. I hoped at the time he was either being facetious, or overly cynical about a former employer. I now think he was just being candid.

I have been involved over the last five or six years in the Broadband over Power Line docket proceeding at FCC, in connection with my work with the American Radio Relay League. In that case, the United States Court of Appeals for the District of Columbia Circuit threw the FCC's BPL rules back to FCC, in part because OET released only parts of technical documents on which they said they relied in the order adopting the BPL rules in 2004. The parts that looked as if they cast doubt on the conclusion of the FCC that BPL would not cause significant interference were redacted (blacked out). The

technical documents were reports on field investigations done by OET staff about BPL deployments. The redacted pages had titles that read, literally, "New Information Arguing for Caution on HF BPL" and "BPL Spectrum Tradeoffs." About this selective release of documents that the FCC said it relied on in adopting rules, the Court said: "enforcing the . . . notice and comment requirements ensures that an agency does not 'fail to reveal portions of the technical basis for a proposed rule in time to allow for meaningful commentary' so that a 'genuine interchange' occurs rather than 'allowing an agency to play hide the peanut with technical information, hiding or disguising the information that it employs.'"

In apparent contrast with the BPL proceeding (where the FCC wanted no bad news about BPL interference and so had to play "hide the peanut" with technical information it had) has been the TV "white spaces" proceeding. The FCC took the position publicly that TV "white spaces" device testing was to be done out in the open, so that everyone had an opportunity to fairly evaluate the results. On July 10 of this year, the FCC released a new series of tests scheduled for "white spaces" devices. Government in the sunshine! This is refreshing, and it is the way technical investigations by the agency ought to be done. Bravo to OET.

But wait! The peanut is being hidden again. Everyone knows that TV white spaces devices are strongly favored by the FCC as yet another possible means of getting the United States out of the doldrums on broadband rollout. FCC Commissioners don't want any bad news about White Spaces devices any more than they wanted bad news about the interference potential about BPL. On May 1, 2008, OET granted Special Temporary Authority (STA) to Philips Research NA, a division of Philips Electronics North America Corp., for the purpose of conducting TV white space device testing in Washington, D.C. A week later, on May 7, 2008, and with no further written submissions by Philips, OET re-issued that STA. The only changes in the re-issued STA were (1) an extension of the term of the STA from one month to two months, and (2) the deletion of the condition attached to the originally issued STA that operation pursuant to the STA is subject to prior coordination with SBE. The deletion of the coordination requirement was unexplained and obviously politically motivated.

OET, years ago, agreed to attach coordination conditions to experimental licenses and STAs that use broadcast or BAS spectrum. The benefits of those conditions are the avoidance of interference and the ability to quickly determine the source of any interference that results to or from experimental operations or operations pursuant to STA, so as to facilitate cooperative, informal remedies on a rapid basis.

No one from Philips ever contacted SBE headquarters pursuant to the condition when the STA was initially issued, or since. Why was the STA reissued without the SBE coordination condition a week after it was initially issued? What makes Philips so special as to be able to bypass the SBE coordination condition attached to "99.9 percent"

(OET's representation) of all STAs and experimental authorizations using broadcast or BAS spectrum? I asked that question during a telephone call with OET in May, and was told that the Philips STA was "for a short term" and that a determination had been made at OET (by some unnamed members of the staff) that the Philips operation was "not likely to cause interference." However, the Philips demonstrations of TV "white spaces" transmitters were to occur over a two-month period, during May and June, 2008. That was not in SBE's view, nor by any comparison to other granted STAs, a "short" period of time. It was to occur in Washington, D.C., an extremely congested market for TV pickup and wireless microphone operation by BAS and LTTS licensees. Because of the vague justification offered for the about-face deletion of the coordination condition SBE requested (by letter dated May 14, all technical evaluations that OET made with respect to that STA in particular in order for the staff to determine that the STA will not cause interference to any Broadcast Auxiliary operations in Washington, D.C.

Here's the kicker: Philips' contact person for Commission inquiries for the STA was former OET Chief Edmond Thomas. Mr. Thomas, we discovered, contacted OET staff after the STA was released. After that meeting, OET very quietly decided to remove the SBE coordination condition attached to the originally issued STA the week before. The STA was issued for the purpose of demonstrating TV "white spaces" devices to "senior Commission staff." The removal of the coordination condition on this STA meant that the broadcast community would not have any idea when or where specifically these devices will be operated. If operation caused interference to BAS

operations, it would be difficult or impossible to isolate the source. So, the deletion of the coordination condition made it a sure bet that no harmful interference, if any there was from this operation, would be reported to the Commission. Since an interference complaint would spoil the demonstration to the "senior Commission personnel" and would have a bad effect on the ongoing ET Docket 04-186, the deletion of the coordination condition insured that no bad news would be discovered about the "white space" devices under "test".

SBE has never received a response to its May 14 letter to OET complaining about this and asking for the technical information on which the decision to delete the coordination condition was based. The peanut has been successfully hidden once again.

**John C. Breckenridge Jr.**  
 President

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# CERTIFICATION: Are we all up to date?

BY Troy Pennington, CSRE, CBNT

*Certification Committee Member; Past President*

**S**BE certification has become accepted industry-wide as a measure of one's broadcast engineering competency. Our responsibilities today span more areas than in the past. We continue to maintain transmitter sites and studios, but more and more of our workday is taken up with the digital realm of lans, wans, servers, firewalls, pc maintenance and servers. IT is the game today. We deal with HD, internet streaming encoders, VOIP, digital phone systems and the list goes on and on. We have learned very quickly that we must change with the times to stay proficient in a modern facility. If we do not accept the challenge we will find ourselves less and less valuable to our employer. And, in this day of economic challenges employers are strapped with tight budgets and are making cost cutting decisions wherever they can. And with the digital age, our employers are searching for more untraditional ways to get additional revenue. This is where we as certified and competent engineers must step up to the plate and help in that search using modern technology. The challenge is on you. In order to remain a valuable resource, you study. You work hard to stay abreast with the latest technology. You prove your value to your employer and you maintain certification to stay current and ensure this value.

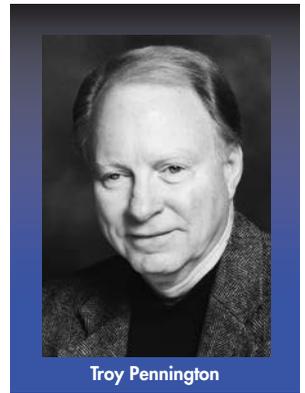
SBE certification is an ongoing

program. Cris Alexander, in an article he wrote for his company's newsletter a few years ago, aptly described our certification program. He wrote how SBE Certification is an ongoing effort and compared the process to that of the airline industry. A pilot must maintain a certain number of hours, landings and pass periodic reviews to remain current to fly. Comparatively speaking, to maintain your SBE certification, you must do a number of things. To list a few, attend SBE meetings, participate in continuing education programs or classes, attend factory schools, attend regional and national conferences, publication of a technical article. The list goes on.

But, the challenge is also on this committee. The SBE Certification Committee must ensure that what is

required to maintain certification must be up to date with today's technology as

well. We must ensure that all elements of our program reflect today's industry environment. This was a point of committee discussion at our gathering in April in Las Vegas. The committee must review all levels of certification and update any certification that may be of "yesteryear" technology. This also applies to refreshing and bringing up to date the requirements and procedures we list to maintain one's certification. Rest assured the committee is working on this challenge. We cannot stand still. We must stay up to date and complete.



Troy Pennington

## SBE Certification 2008-09 Exam Schedule

Dates	Location	Application Deadline
August 8-18, 2008	Local Chapters	CLOSED
November 7-17, 2008	Local Chapters	September 19, 2008
February 6-16, 2009	Local Chapters	December 31, 2008
April 21, 2009	NAB	April 1, 2009
June 5-15, 2009	Local Chapters	April 17, 2009
August 7-17, 2009	Local Chapters	June 5, 2009
November 6-16, 2009	Local Chapters	September 18, 2009

### **PRESIDENT** from page 5

you get back in interest. In our case, the more you participate, the more your efforts are amplified as they combine with your colleagues efforts. The better we make our lives.

Your local chapter is the first place to

see the fruits of your efforts. If you and a few others participate, use the shared resources available to develop your chapters, you'll see participation grow.

I know many of you may not have active chapters nearby. You can gather one or two people to re-energize an inactive

chapter or you can actively participate in our online and ham communities.

You'll see your efforts, and your time benefit all of us.

What you get out of the Society is simply a reflection of what you put into it.

# 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®)

Joseph Hickey, Annandale, VA – Chapter 37  
William Hineman, Nashville, TN – Chapter 103

Jack Kline, Landisville, PA – Chapter 41  
Thomas Smith, Sun Prairie, WI – Chapter 24  
Jack Yaghdjian, Hialeah, FL – Chapter 53

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

Peter Burkett, Custer, SD – Chapter 131

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

Patrick Malley, Silver Spring, MD – Chapter 46

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

Peter Burkett, Custer, SD – Chapter 131

#### CERTIFIED TELEVISION OPERATOR® (CTO®)

Peter Burkett, Custer, SD – Chapter 131

### 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®)

David Agnew, Windsor, CO – Chapter 74  
James Campbell, III, Old Hickory, TN – Chapter 103  
Michael Daniels, Winchester, KY – Chapter 35

### SBE CERTIFIED SCHOOL COURSE COMPLETION

#### *Southern ALBERTA INSTITUTE OF TECHNOLOGY*

Nicholas Kirkwood  
Kent Nordholt  
Bradley Plant  
Goran Poprzen  
Andrew Sayer

#### *Defense Information School*

Robert Meade, Fort Meade, MD – Chapter 132

### NAB EXAMS

#### CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)

Richard Torpey, Bay Shore, NY – Chapter 15

#### CERTIFIED AM DIRECTIONAL SPECIALIST (AMD)

Joseph Huk, Adrian, MI – Chapter 82

#### DIGITAL RADIO BROADCAST SPECIALIST (DRB)

Timothy Anderson, Covington, KY – Chapter 33

Wayne Pecena, College Station, TX – Chapter 99

### JUNE EXAMS

*"Thank You" CHAPTER CERTIFICATION CHAIRS FOR YOUR ASSISTANCE*

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

Anthony Guerra, Toronto, Ontario Canada

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

Ruben Garcia, Sterling, VA – Chapter 37  
Elmir Husetovic, Lombard, IL – Chapter 26  
Zolt Vicsacsan, Phoenix, AZ – Chapter 9

#### CERTIFIED VIDEO ENGINEER® (CEV®)

John Salt, Chicago, IL – Chapter 26  
Paul Stanion, Ithaca, NY – Chapter 140  
Scott Storkel, Fitchburg, WI – Chapter 24  
Zolt Vicsacsan, Phoenix, AZ – Chapter 9

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

Justin Arnett, Austin, TX – Chapter 79  
Kenneth Fields, Mill Creek, WA – Chapter 16  
Vincent Fuhs, Sioux Falls, SD  
Greg Gallagher, Eldridge, MD – Chapter 46  
Ruben Garcia, Sterling, VA – Chapter 37  
Jaime Gonzalez, Fresno, CA – Chapter 66  
Robert Locke, Redlands, CA – Chapter 131  
Gordon McFarland, Omaha, NE – Chapter 74  
Tri Nguyen, Garland, TX – Chapter 67  
Marcos O'Rourke, Santa Ana, CA – Chapter 47  
Jose Placido, Elk Grove, CA – Chapter 43  
Michael Redfean, Buckeye, AZ – Chapter 9  
Ralph Schmitz, Windsor Heights, IA – Chapter 109  
Anthony Searcy, Byram, MS – Chapter 125  
Jonathan Solomon, Columbia, MD – Chapter 132  
Scott Storkel, Fitchburg, WI – Chapter 24  
Kevin Trueblood, Bloomington, IL – Chapter 49  
Robert Waldron, Greenville, SC – Chapter 86  
Glenn White, Kansas City, MO – Chapter 59  
Brian Williams, Erie, PA – Chapter 130

#### CERTIFIED BROADCAST TECHNOLOGIST® (CBT®)

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

#### CERTIFIED RADIO OPERATOR® (CRO®)

Hugo Isensee, San Antonio, TX – Chapter 69  
Robert Worek, Cheswick, PA – Chapter 20

#### CERTIFIED TELEVISION OPERATOR® (CTO®)

Richard Garza, Sweetwater, TN – Chapter 113  
Jeffrey Miller, Parma Heights, OH – Chapter 70  
Chris Thomas, Bremerton, WA – Chapter 16  
Robert Worek, Cheswick, PA – Chapter 20

### CERTIFIED BY LICENSE

#### CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

Christopher Clayton, Cartersville, GA – Chapter 5  
Krister Hatch, Chicago, IL – Chapter 26  
Christine Klemapy, Westerville, OH – Chapter 52  
Michael Moseman, Val Verde, CA  
Bruce Pedersen, Eugene, OR – Chapter 76  
Michael Sheffer, West Chester, PA – Chapter 18

### CERTIFIED RADIO OPERATOR® (CRO®)

#### CERTIFIED RADIO OPERATOR® (CRO)

Yolanda Dozier, Las Vegas, NV  
Rachel Mitchell, Connelly Springs, NC

### CERTIFIED TELEVISION OPERATOR® (CTO®)

#### CERTIFIED TELEVISION OPERATOR® (CTO®)

Paula Barnes, Moreno Valley, CA  
Damon Bennett, Falls Church, VA  
Kerry Dickson, Portland, OR  
Matt Dobney, Portland, OR  
Charles Dutton, Portland, OR  
Joshua Filla, Chardon, OH  
Aide Gonzalez, Redlands, CA  
Dan Greil, Indianapolis, IN  
Jeff Holt, West Allis, WI  
Robert Locke, Redlands, CA  
Lynda McWilliams, Sun City, CA  
Elliot Morales, Maywood, NJ – Chapter 15  
Jeff Smith, Portland, OR  
Jeremy Stone, Phelan, CA  
Craig Teubl, Willoughby, OH  
William Thun, Portland, OR  
Jim Titus, Portland, OR  
Scott Wagner, Temecula, CA  
Kathy Wheelock, Charlotte, NC

#### *Kent State University*

Steven Hardinger  
Justin Klish  
Evan Lockhart  
Jennifer Mastrangelo  
John Proppe  
Elizabeth Worthington  
Matthew Zronek

### 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®)

Paul Claxton, Moreno Valley, CA – Chapter 131  
Robert Lankton, Bradenton, FL – Chapter 39  
Donald Stewart, Spencerport, NY – Chapter 133

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

John Graham, Miamisburg, OH – Chapter 33

#### CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)

Thomas Alderson, Spokane, WA – Chapter 21

#### CERTIFIED SENIOR RADIO/TELEVISION ENGINEER (CSRTE®)

Brian Hoover, South Bend, IN – Chapter 30

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

Franklin Bell, Clifton, NJ – Chapter 15  
Adam Bull, Deland, FL – Chapter 42  
Joe Cordova, Henderson, NV – Chapter 128  
Andrew Funk, Houston, TX – Chapter 105  
Brian Ryel, Bartlesville, OK – Chapter 56

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

Franklin Bell, Clifton, NJ – Chapter 15  
Paul Claxton, Moreno Valley, CA – Chapter 131  
David Davidson, Citrus Heights, CA – Chapter 43  
Phillip Vaughan, Cathedral City, CA – Chapter 131  
Robert Whiting, Highlands Ranch, CO – Chapter 48

#### CERTIFIED BROADCAST TECHNOLOGIST® (CBT)

Robert Whiting, Highlands Ranch, CO – Chapter 48  
Bradley Meyer, Collinsville, OK – Chapter 56  
Bruce Whitsel, Canton, OH – Chapter 70

#### CERTIFIED TELEVISION OPERATOR® (CTO®)

Thomas Abele, Midwest City, OK  
James Borden, North Richland Hills, TX  
Julie Brafford, Winter Park, FL  
Garry Clausing, Tulsa, OK  
Andrew Cummis, Bensalem, PA – Chapter 15  
Kenia Fortesa, Miami, FL  
Jack Johnson, Tulsa, OK  
Anita Justus, Mounds OK  
Kenneth Lindeman, Marquette, MI  
Richard Mickelson, Tulsa, OK  
Robert Staffieri, Temecula, CA

#### CERTIFIED RADIO OPERATOR® (CRO)

Harry Lewis, Powell, TN  
Todd Stickler, Costa Mesa, CA

# Ensuring PMCP/PSIP Interoperability

BY Chris Lennon, Harris Corporation; Jerry Whitaker, CPBE, 8-VSB, ATSC; and William Hayes, Iowa Public Television

**R**ecognizing the need for improved industry-wide PMCP interoperability, and thus more accurate PSIP, the ATSC has formed a new Working Group on PSIP Workflow Interoperability, known internally by the group name PC-7. This group reports to the ATSC Planning Committee and is chaired by Chris Lennon of Harris Corporation.

For those not familiar with it, PMCP (ATSC Standard A/76B) is the Programming Metadata Communication Protocol. It provides a standardized means of communicating PSIP-related data among the systems that manage it. PMCP has been around for some time, and has recently enjoyed a significant uptake in the industry as interest in and awareness of the need of dynamic, accurate PSIP increases.

Part of the scope of the ATSC Planning Committee is to “support the use of ATSC standards and recommended practices through activities such as education, training, demonstrations and fostering interoperability.” The goal of the PC-7 Working Group is to assemble a group of broadcasters and vendors who are implementing (or plan to implement) dynamic PSIP by way of PMCP interfaces between systems such as listing services, program management, traffic, automation, and PSIP generator systems. The group will work to improve interoperability of these systems by way of information exchange regarding PMCP and implementation issues, both on regular conference calls, and at one or more in-person interoperability sessions in Toronto in late Fall 2008.

The PC-7 Working Group hopes to provide members a forum in which vendors and broadcasters can work out interoperability details in an open, cooperative environment, benefiting not only the vendors, but the broadcasters who will be implementing these interfaces. Having all PMCP-compliant systems truly interoperable is in everyone’s best interest.

**PSIP Requirements and How PMCP Can Help.**

Since the Federal Communications Commission (FCC) incorporated ATSC Standard A/65, “Program and System Information Protocol for Broadcast and Cable (PSIP),” into its rules, stations have made great strides in complying with the provisions of the standard. This is good for broadcasters and good for consumers.

Since the first version of the PSIP Standard was published in 1997, compliance reflected good engineering practice on the part of television stations, since the standard offers benefits for both viewers and broadcasters. PSIP is—in fact—critical to proper operation of the DTV system.

For the viewer, PSIP permits suitably equipped receivers to build an on-screen grid of channels and program information for all DTV services. In addition, the viewer can seamlessly surf from NTSC to HDTV to SDTV. For broadcasters, PSIP maintains local brand identification through the “major channel number.” PSIP identifies both the DTV channel and the associated NTSC channel and enables DTV receivers to associate the two. In addition, PSIP tells the receiver whether multiple program channels are being broadcast and, if so, how to find them. Furthermore, it identifies whether the programs are closed captioned and conveys available content advisory information, among other things.

**The Role of PMCP.**

The Programming Metadata Communication Protocol (PMCP) can greatly simplify the process of generating highly accurate PSIP data. A/76 was developed by the ATSC Specialist Group on Metadata Communications, TSG/S1, under the leadership of Graham Jones of NAB and now chaired by Art Allison of NAB.

Because PSIP and other DTV metadata is originated or processed by several separate systems and related equipment, there are often difficulties in communicating the appropriate metadata to the PSIP generator. Implementing PMCP helps ensure that the transmitted PSIP information is complete and correct, with minimum manual intervention by the broadcaster.

PMCP is based primarily on XML (extensible markup language). It enables broadcasters and manufacturers to more easily interconnect systems that process PSIP and other DTV metadata. This includes, but is not limited to:

- Traffic
- Program management
- Listing service
- Automation
- MPEG encoder
- PSIP generator

PMCP is also extensible for other types of metadata, and can convey private information within the current data structure.

With the XML schema being both human and machine readable, PMCP implementation becomes a more simplified process by specifying exactly which elements are allowed in messages, their relationships, individual attributes, and data types. PMCP references and is complementary to existing ATSC Standards. It supports the ISO Standard ISAN for unique identification of program content and carries all the information needed in one message structure for:

- Virtual channels
- PSIP events
- Programs
- System Time Table
- Directed Channel Change Table
- Regional Ratings Table
- Private Information

**Get Involved**

In order for simple and reliable operations to be possible, a lot of thought and effort has to be made on the front-end design of these systems. Broadcasters cannot simply wait on the sidelines to see what the manufacturers implement. With the growing pressures of adding additional services in the digital domain and decreasing budgets forcing stations to do more with fewer people, it is vital that these systems work well together. Manufacturers alone cannot effectively create systems that will meet all the needs of the broadcast community. Stations personnel from the engineering, operations, and traffic areas must also participate. The success or failure of these systems is dependent on their application at the line level, not the senior management level. The manufacturing community has a vested interest in participating since the sales of these systems are important to their growth, but the broadcast community has an even stronger interest since the functionality and reliability of these systems play a vital role in the stations’ ability to serve the consumer.

ATSC members are invited to join the PC-7 Working Group at <http://members.atsc.org>. In keeping with the ATSC’s long-standing policy of encouraging the broadest participation possible, non-ATSC members are also invited to participate in this activity. Non-members wanting to join PC-7 should contact Jerry Whitaker at [jwhitaker@atsc.org](mailto:jwhitaker@atsc.org).

All ATSC standards and recommended practices can be downloaded at no charge from the ATSC Web site at: [www.atsc.org/standards.html](http://www.atsc.org/standards.html).

# SBE Chapter 40 San Francisco Tours Radio Marine Station KPH

BY Paul Black, CPBE

SBE Chapter 40 Treasurer

For almost the entire 20th century, communication between ships at sea and land base stations was done by Morse code in CW. Everything from business communications to personal telegrams to and from passengers were all sent via the ship-to-shore stations along America's coastlines.

Here in the San Francisco Bay Area, we are fortunate to have one of the most unique and well preserved examples of this era of communications. SBE Chapter 40 sponsored a tour of this amazing station, originally designated as marine radio station KPH.

Today the facility is licensed under the call letters KSM. It's located on the Pacific coast, in two separate geographical locations. The transmitters are located in Bolinas, California, which is near Stinson beach, on the coast. The receivers (and station control facilities) are located in Point Reyes, California, about 15 miles away.

The separate locations were necessary because marine radio communications were duplex. At the time the transmissions were being sent, information was also being received simultaneously.

The history of KPH goes back to the early days of radio at the turn of the nineteenth century. Originally located in downtown San Francisco, the station moved to several different sites around the Bay Area, finally settling in the above-mentioned locations about 1920. Most of the original buildings are still standing.

The tours began with a look at the transmitter site in Bolinas, which is about 15 miles from Point Reyes where the receive site is located. Driving up to the site, one comes upon a narrow private road, which leads back about a half a mile to the transmitter building. From the road, you can see the various antenna farm stretched out over acres of land. Just about every type of long-range antenna is represented here.

All of these are huge, some of them dozens of feet tall, and long. Each transmitter had a log sheet attached to it, and readings were done regularly, in accordance with FCC rules at the time. Interestingly, fountain pens were used almost exclusively.

Following the transmitter tour, we proceeded on to the receive site, which has as much acreage around it as the transmitter site for reception antennas.

Messages were sent and received both by CW and RTTY, and the station still has equipment for both of these modes. The interior of the CW operating area is quite small. This allowed the operators to pass papers around easily, and to talk to each other quickly.

We were fortunate that both Richard Dillman, who currently manages the facility for the National Park Service (which now owns



The KPH building in Point Reyes, CA, housing the receivers and primary control point.

the property under the heading of the Point Reyes National Seashore) and Denise Stoops (call sign "DA") to provide us with stories of the "old days" when the station was fully operational. Ms. Stoops served as an operator there for 18 years, and thanks to her presence during the tour, we all gained a great appreciation of what it was like.

KPH maintains a wonderful website loaded with information about it and the Marine Radio service, at [www.radiomarine.org](http://www.radiomarine.org). One warning; once you check in to the site, be prepared to spend some time perusing the pictures, descriptions, and information on this amazing service. Like old-time radio, it's an era that's long gone, but not forgotten.

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## ELECTION *from page 1*

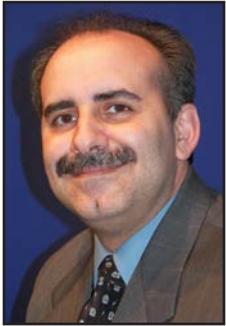
SBE's Sustaining Members. When the ballot reaches your mail box, please take the time to review the descriptions and opinions of all the candidates, make your selections and return the ballot to the SBE National Office no later than Thursday, August 28. The ballots will be tabulated that night. Use the 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 are not included in the tabulation.

This year, there are eight candidates vying for the six available director seats on the Board. There is also one candidate for each of the four officer positions.



### **President**

**Barry Thomas, CPBE, CBNT**  
*Lincoln Financial Media*  
Vice President of  
Engineering - Radio  
Atlanta, GA



### **Vice**

### **President**

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



### **Secretary**

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



### **Treasurer**

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



### **Director Candidates**

**Ralph Beaver, CBT**  
*Media Alert, Inc.*  
Tampa, FL



**Jim Bernier, CPBE, CBNT**

*Turner Entertainment Networks, TBS, Inc.*  
Director, Maintenance,  
Design & Engineering  
Alpharetta, GA



**Troy Langham, CSRE**  
*Clear Channel Commu-  
nications*

FCC Engineering  
Supervisor  
Tulsa, OK



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



**Gary Liebisch, CPBE**  
*Nautel*  
Regional Sales  
Manager  
Milford, OH



**Scott Mason, CPBE**  
*CBS Radio*  
Regional Director of  
Engineering  
Los Angeles, CA



**Mark Simpson, CPBE, AMD, CBNT**  
*Citadel Broadcasting - Tucson*  
Director of Engineer-  
ing/MIS  
Marana, AZ



**Jeff Smith, CEA, CBNT**  
*Clear Channel Radio - NYC*  
Supervisor Broadcast  
Systems, CE WWPR  
New York, NY

A group of SBE members from Chapter 25 in Indianapolis will serve as the Board of Tellers and tabulate the votes on the evening of August 28th. Candidates will be notified the following day of the results. Those elected will take office following an induction ceremony held during the SBE National Meeting on October 15, in Madison, Wis. The National Meeting is being held in conjunction with the Wisconsin Broadcasters Clinic, sponsored by The Wisconsin Broadcasters Association and SBE Chapter 24.

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:hessex@sbe.org).

# Madison, Wis. Hosts SBE National Meeting

**T**he 2008 National Meeting of the Society of Broadcast Engineers will be hosted by Chapter 24 of Madison, Wis. on October 14-15 in conjunction with the Wisconsin Broadcasters Clinic. The Clinic is sponsored by the chapter and the Wisconsin Broadcasters Association (WBA).

The Broadcasters Clinic is a three-day event (through the 16<sup>th</sup>) that features technical papers and a broadcast equipment and services exhibition. Chapter 24 and SBE National invite any and all SBE members and others interested in broadcast technology to attend. The SBE National Meeting and Broadcasters Clinic will be held at the Marriott Madison West Hotel, located in the Madison suburb of Middleton.

The schedule for the National Meeting includes a meeting of the SBE Certification Committee on the afternoon of Tuesday the 14<sup>th</sup>, followed by the fall meeting of the Board of Directors from 6:00 pm to 10:00 pm. Activities on Wednesday, October 15 include the annual SBE Fellows Breakfast, from 8:00 am to 9:00 am, the Annual SBE Membership Meeting from 4:00 pm to 5:00 pm, the SBE National Awards Reception from 5:00 pm to 6:00 pm and the SBE National Awards Dinner

from 6:00 pm to 8:30 pm. Some special musical entertainment is planned for the reception you won't want to miss.

The SBE National Awards Dinner program will include a special guest speaker and the presentation of the SBE Broadcast Engineer of the Year to Cris Alexander, CPBE, AMD, DRB of Denver, Colo., Educator of the Year to William T. Hayes of Johnston, Iowa, Technology Award to Daniel Slentz of Zanesville, Ohio and other chapter and individual awards. The SBE Fellow award will be presented to Leonard Charles, CPBE of Madison, Wis.

The Broadcasters Clinic begins Tuesday the 14<sup>th</sup> at 7:00 am with registration and Continental breakfast. Technical sessions oriented to radio will be held during the day beginning at 9:15 am. Exhibits and a reception will run from 4:15 pm to 7:30 pm, followed by a "Nuts & Bolts" panel discussion.

On Wednesday the 15<sup>th</sup>, The Clinic continues with technical sessions of general interest beginning at 8:00 am and



The 2008 National Meeting of the Society of Broadcast Engineers will be held at Madison Marriott West Hotel in Madison, WI.

ending at 4:00 pm. Exhibits will also be open much of the day.

On Thursday, technical sessions will concentrate on television oriented topics, beginning at 8:00 am and ending about 3:30 pm. Lunch is available to registered attendees all three days.

Registration is now open for the Clinic at the WBA website, <http://www.wi-broadcasters.org>. There is an early-bird discount available through August 29. Tickets for the SBE National Awards Dinner and reception (still just a low \$14 each) are also available to order at the WBA website.

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## AWARDS from page 1

Digital Radio Specialist certifications from the SBE. Alexander is known for being an effective teacher. As chairman of the SBE Education Committee, he has initiated several new ways of training the next generation of engineers, including online courses.

Alexander began his broadcasting career in 1976 working for KWAS. He graduated from CIE in December 1978. For the past 24 years, he's worked for Crawford Broadcasting Company, where he is currently the Director of Engineering. Over the years, Cris has designed and built studio and transmitter sites from the ground up, and since 1987, he has actively contributed to *Radio World*.

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 2007 SBE **Technology Award** will be presented to **Daniel Slentz & WHIZ TV/DTV FM & AM**.

"We had a great team for all the technical creativity and work last year. The TV master control operators at our station even assist with engineering support (on a volunteer basis). Those who helped on our tech projects included Stephanie Perry, Kevin Buente, Jonathan Weirmeir, Tom Hatfield and my nephew Tyler Slentz who is an Ohio University student and now interning at Fox News in Washington, D.C. I couldn't do any of the things we do here if I didn't have a phenomenal group of people working for me," Slentz said.

The 2007 SBE **Educator of the Year Award** will be presented to **William Hayes**. Hayes has been the Director of Engineering and Technology at Iowa Public Television since 1999. He

started his broadcasting career in 1973 and later received his Bachelors Degree in Communications from Loyola University in 1977. He is currently responsible for the planning and development of all technology projects at Iowa Public Television including RF transmission facilities and studio origination facilities. In addition to his position at IPTV, he is also a contributor to *TV Technology*.

The award for **Best Technical Article, Book or Program** by a SBE Member goes to **Doug Irwin** for his article, "Performance Evaluation" in *Radio* magazine in December 2007.

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.

### Chapter Website:

Chapter 54 – Hampton Roads, VA

### Regional Conference:

Chapter 22 – Syracuse, NY

### Chapter Newsletter:

Chapter 70 – NE Ohio

### Frequency Coordination:

Dennis Orcutt Chapter 85– Norman OK



Members of the engineering team for WHIZ TV/DTV, FM & AM, Dan Slentz, Bill Hicks, and Edward Hedge received the 2007 SBE Technology Award.

### Most Interactive Chapter:

Atlanta, Georgia Chapter 5

### STATISTICAL AWARDS

By class (A= 45 or fewer members, B= 46 or more members)

### Most Certified

- A) Chapter 126 Saipan
- B) Chapter 131 Inland Empire

### Most Growth

- A) Chapter 132 Ft. Meade, MD
- B) Chapter 136 Seattle, WA

### Highest Member Attendance

- A) Chapter 51 Tri Cities
- B) Chapter 24 Madison, WI

Our thanks to the SBE National Awards Committee, chaired by Director Larry J. Wilkins, CPBE, AMD, CBNT of Chapter 118, Montgomery Ala. Members of the 2007 committee are: Keith M. Kintner, CPBE, CBNT; Troy Pennington, CSRE, CBNT; and Terry Baun, CPBE, AMD, CBNT.

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

## New Members

Derrick Cassidy - Marietta, GA  
Aaron A. Dunlop - Lincoln, NE  
Jehan C. Maheswaran - Coral Gables, FL  
Raymond Tyson - Glastonbury, CT  
Al Jason - Cameron Park, CA  
Letricia L. Lawson - Dayton, OH  
Kevin S. Russell - Hudson, CO  
Steve Billing - West Palm Beach, FL  
Josian J. Rodriguez - Phoenix, AZ  
Ralph G. Schmitz - Windsor Heights, IA  
Glenn White - Kansas City, MO  
Charles G. Couch - Kernersville, NC  
Gregory J. Hejl - Lake Ann, MI  
Charles E. Anderson - West Point, CA  
Thomas P. Donohue - Daytona Beach, FL  
Steven B. Campbell - Albuquerque, NM  
Mark E. Goldfarb - Chesapeake, VA  
Joshua D. Matthews - San Luis Obispo, CA  
Kenneth G. Ostmo - Tulsa, OK  
Michael W. Proffitt - Sacramento, CA  
Rodney J. Rockwell - Martinsburg, WV  
Shawn T. Serre - Pittsfield, MA  
John W. Tiesi - Albuquerque, NM  
Stephen R. Quinn - North Haven, CT  
Carolyn A. Koepf - South Bend, IN  
Glenn Mar - Redmond, WA  
Troy D. Kinch - Las Vegas, NV  
Gerald R. Meakins - Topeka, KS  
Joseph Morales - Miramar, FL  
Thomas M. Petti - Topeka, KS  
Tom J. Stewart - Dania, FL  
Samuel N. Lewis - Chattanooga, TN  
David M. Rey - Long Beach, CA  
Robert C. Buchanan - San Diego, CA  
Andrew R. Cole - Oceanside, CA  
James R. Hammond - College Park, GA  
Mark L. Kwansah - Severn, MD  
Larry K. Lewis - Mundelein, IL  
Cristiano Nuernberg - Cambridge, MA  
Patrick R. Smith - Pittsburgh, PA  
Mario Viescas - San Diego, CA  
Mina Zaki - San Diego, CA  
Donald Bohrer - El Paso, TX  
Alex I. Brawner - La Mesa, CA  
Lynn Strube - Solon, OH  
Kevin Degidon - New York, NY  
Daniel J. Fogle, Jr. - Valencia, CA  
William Major - River Ridge, LA  
John Peers - Hoover, AL

Sophia M. Beswick - Sunrise, FL  
Kathryn L. Crum - Wilmington, OH  
Edward Czarnecki - Chantilly, VA  
Paul H. Freel - Milwaukee, WI  
Bernard Hampton, Jr. - Detroit, MI  
Larry J. Oberg - Saint Paul, MN  
John-Erick M. Rempillo - Abu Dhabi, UAE  
Nichole D. Whitaker - Ogden, UT  
Chris M. Wygal - Lynchburg, VA  
Jon Hall - Bloomington, IL  
Raymond J. Lenz - Virginia Beach, VA  
Robert F. Meade - Fort Meade, MD  
Robert Musso - New York, NY  
Henry A. Sisler, III - New Orleans, LA  
Adam Arenas - West Orange, NJ  
William J. Epperson - Wellington, FL  
Michael L. Gardner - Raleigh, NC  
Michael Means - Medford, OR  
Michael C. Dow - Austin, TX  
Valerie J. Rostkowski - Brooklyn, NY  
C. Austin Wright - Chatham, Ontario, Canada  
James DeChant - Bend, OR  
Robert R. Miller - Newburgh, IN  
Raul J. Olave - Miami, FL  
Scott Spickard - Tucson, AZ  
Richard W. Towers - Trenton, FL  
William C. Dunlap - Lewiston, ID  
Bjeorn Johansson - College Park, MD  
Jerry L. Lile - Bend, OR  
Juan C. Patarroyo - Miami, FL

## New Students

Sergey Kurakin - Spokane, WA  
Nicholas R. Kirkwood - Calgary, Alberta, Canada  
Kent A. Nordholt - Calgary, Alberta, Canada  
Bradley Plant - Ottawa, Ontario, Canada  
Goran Poprzen - Calgary, Alberta, Canada  
Andrew W. Sayer - Calgary, Alberta, Canada  
Edward E. Hodge - Zanesville, OH  
Ettore D. Albuquerque - Spokane, WA  
Timothy G. Kershner - Ottawa Lake, MI  
Edith F. Kirkland - Inman, SC  
Ken O'Hara - County Wicklow, Ireland  
Joseph W. Carter - Denton, TX

## New Associates

James A. Abron, Jr. - Livonia, MI  
Kevin A. Dye - Novi, MI

Matt Willmore - Houston, TX

## New Youth

Michael H. Levin - Exeter, NH  
Michael A. Moss - Webster, NY

## Reinstated Members

Paul O. Matthews - Murrells Inlet, SC  
Loren S. Chism - Elgin, IL  
Jose F. Cruz - Valley Center, CA  
Andrew E. Lombard - San Diego, CA  
Greg Blanton - Dallas, TX  
Kelli A. McMillan - Depew, NY  
Robert C. Gray - Orlando, FL  
Guy J. West - Cedar Rapids, IA  
Michael L. Moseman - Val Verde, CA  
Paul J. Russell - Miami, FL  
Robert M. Henry - Albuquerque, NM  
Rudy D. Morris - Fort Pierce, FL  
Brian W. Zittlau - Mesa, AZ  
Gee Strongbear - Wesley Chapel, FL  
Ken R. Brown - Edgewood, NM  
Paul J. Scaglione - Canton, GA  
Mark A. MacKinnon - Hudson, ME  
Chris J. Courtney - Urbana, IL  
Garrett W. Buhlig - Chandler, AZ  
Sean R. Fahey - West Valley, UT  
Michael P. Sheffer - West Chester, PA  
David A. Dumas - Pittsburgh, PA  
Calvin H. Schantz - Deland, FL  
Michael L. Hayes - Tallahassee, FL  
Paul K. Marcontell - Seattle, WA  
Trent E. Muldrow - Columbia, SC  
Eric R. Papenfuss - West Salem, WI  
Donald B. Driskell - Brandon, MS  
Norman J. Philips - Arlington, TX  
Terry M. Stenzel - Brandon, MS  
Jon R. Scaptura - Endicott, NY  
Marvin L. Brewer - Greenville, NC  
John F. Schneider - Quincy, IL  
Matthew J. Baptista - Concord, CA  
Patrick Curran - Frankfort, KY  
Christopher W. Boone - Beaumont, TX  
John W. George - Raleigh, NC  
Gabriel A. Flynn - Rockford, IL  
Greg C. Noggle - Madison, WI

## Reinstated Students

Robert E. Ballou - Hampstead, MD

# Coast to Coast, educational opportunities abound

BY **John L. Poray, CAE**

*SBE Executive Director*

**A**s we head into the end of summer and on into the fall, the schedule of regional conventions and other educational events heats up. There are at least six SBE chapters heavily involved with educational events to be held from August through October this year. Here's a run down of what's coming up. If you're near one of these events, try to include them in your calendar.

## **AUGUST**

### **6-8 Texas Association of Broadcasters Convention – Austin, Texas**

SBE members across Texas always assist the TAB with arranging technical sessions. This event will be preceded by a three-day seminar on AM Transmission offered by *Radio Guide*. The SBE AM Directional Specialist Exam will be offered following the seminar. See the TAB website at <http://www.tab.org/convention-and-trade-show/>.

### **27 Ennes Workshop, Oklahoma City, Okla.**

The next Ennes Workshop will be in Oklahoma City, sponsored by Chapter 85. The chapter is also arranging for a dozen manufacturers to exhibit during the day. Register through the SBE National Office. Go to [www.sbe.org](http://www.sbe.org) and click on "Oklahoma City Hosts Ennes Workshop and Broadcast Equipment Trade Show" for more information.

## **SEPTEMBER**

### **13 Ennes Workshop, Hartford, Conn.**

Chapter 14 of Connecticut will be hosting an Ennes Workshop on Saturday, September 13<sup>th</sup> with assistance from the Connecticut Broadcasters Association. See the SBE website for details.

### **18 SBE RF Safety Course**

This will be the seventh offering of this popular web-based course since we began offering it in June 2007. The FCC has said that training for people with access to RF areas is now required. Richard Strickland does a great job with this. Again, see the SBE website for details.

### **23-25 SBE Leader Skills Course I, Indianapolis, Ind.**

This is the only training available specifically designed to develop leadership and management skills of the broadcast engineer. More than 1,000 broadcast engineers have taken the course. This will be instructor Dick Cupka's final course before retiring. Rodney Vandever will co-instruct. Indianapolis Holiday Inn Select Airport. Yes, go to the SBE website.



## **OCTOBER**

### **7-8 SBE Chapter 22 Broadcast & Technology Expo, Verona, N.Y.**

This will be the 36<sup>th</sup> annual event - the largest attended SBE regional convention in the country – close to 1,000 people. More than 100 exhibitors, plenty of technical sessions and special events make this a must see. Turning Stone Resort & Casino, 30 miles east of Syracuse.

### **14-16 Wisconsin Broadcasters Clinic, Madison, Wis.**

This is the oldest on-going broadcast engineering conference in the country. Chapter 24 of Madison works closely with the Wisconsin Broadcasters Association to make this a great event every year. Three days of technical sessions, trade show and more. This year, it will also serve as host to the SBE National Meeting. Go to [www.wi-broadcasters.com](http://www.wi-broadcasters.com) for more information.

### **20-21 Chapter 20 2008 Annual Equipment Expo, Pittsburgh, Pa.**

The Pittsburgh ExpoMart will be the location of Chapter 20's 37<sup>th</sup> annual conference and exhibits. The program opens Monday night with exhibits and a reception and continues Tuesday with technical sessions and more exhibit time. Go to <http://www.sbe20.org/expo> for more information.

### **24 Ennes Workshop, Eugene, Ore.**

The last Ennes Workshop of 2008 will be held in Eugene, Ore., hosted by Chapter 76. Broadcast engineers up and down the coast are encouraged to attend. See the SBE website for details.

We'll begin to put together the 2009 schedule of Ennes Workshops soon. The number of Ennes Workshops SBE is able to present each year is limited to only five or six. The cost to host an Ennes Workshop is covered by a combination of registration fees and sponsorships from local chapters, state broadcast associations and/or broadcast manufacturers. The primary responsibilities of the host chapter are to locate a suitable location and promote attendance. The SBE National Office does the rest. If your chapter is interested, please contact me at [iporay@sbe.org](mailto:iporay@sbe.org) or (317) 846-9000.

Have a good summer and I hope to see you at one of these great events in the coming months.

# SBE RF Safety Course Set for September 18

**T**he Society of Broadcast Engineers will be offering the SBE RF Safety Course on Thursday, September 18 from 2:00 pm to 5:30 pm, EDT. This web-based course is taught by Richard Strickland of RF Safety Solutions, an expert in the field of RF safety. The course is designed for broadcast station personnel, including chief and assistant chief engineers, transmitter site engineers, ENG and SNG maintenance personnel and management that need to have an understanding of RF safety issues and regulations.

The course will provide an overview of RF radiation issues for broadcast engineers and others at stations that need to access RF areas. The course will include:

Biological effects of RF radiation and the distinct differences between RF radiation and ionizing radiation FCC and OSHA regulations - what they are and what you need to do to comply.

Workplace hazards including:

- Transmitter Sites
- SNG and ENG trucks
- Remote operations (where news personnel can find problems such as on rooftops)
- The unique issues at AM stations
- RF hazard protection equipment - you may not need it but your contractors probably will.
- Signs - what they mean and what you need.

The course makes use of MS PowerPoint and is interactive - questions can be asked at any time during the course using the live audio connection.

Each participant will receive a course "hand-out" via e-mail prior to the course.

Those who complete the course will receive a certificate of completion through the mail from the Society of Broadcast Engineers. We recommend that persons taking the SBE RF Safety Course have at least a basic knowledge of electronics and understand the concept of frequency.

Our instructor, Richard Strickland, founded RF Safety Solutions in 2001 after ten years as Director of Business Development for Narda Safety Test Solutions, the world's leading supplier of RF safety measurement and monitoring products. He initiated the development of RF radiation training courses at Narda and has conducted courses ranging from basic employee awareness seminars to in-depth application-specific courses. Audiences have included environmental health and safety professionals, engineers, technicians, attorneys, communications industry professional consulting engineers and senior managers of major corporations, government organizations and professional groups.

Mr. Strickland holds an MBA from the University of Massachusetts and a B.A. in Physics from Bridgewater College. He's authored more than 35 articles on RF safety, high-power amplifiers and radomes and has conducted more than 150 public and in-house training courses on RF safety and measurement. This will be the eighth SBE RF Safety Course he has conducted.

The course will be conducted via web conference, which requires an Internet connection for the video portion. A toll-free telephone connection is used for the audio portion. To accommodate the on-going interest in this course, we are encouraging SBE chapters, broadcast stations or companies to host the

course at a location where multiple local members or employees can be accommodated (an individual may register for this course and be the sole participant from his or her own home or office, space permitting).

For sites with more than a few participants, an LCD projector

and screen will be needed with an Internet-connected computer. For the audio portion, the host will dial a toll-free number and the audio can be amplified as needed for the size of the audience. Log-in sites are limited to just nine for the course. Since there are fixed costs for Internet and telephone connections to present the course, we have established pricing that encourages group participation at each log-in site.

Each log-in site host will be provided with a web address with participant code, a toll-free telephone number to access the course and instructions no later than the day before the course.

The log-in ports are reserved on a first come, first served basis. If demand warrants, we will schedule additional courses.

## **TO REGISTER:**

### **STEP ONE**

The first step is to reserve a log-in port by e-mailing the SBE National Office at [RFSafetyCourse@sbe.org](mailto:RFSafetyCourse@sbe.org) or by calling Debbie Hennessey at (317) 846-9000. Request a log-in port for the September 18, 2008 course. One paid course registration must be received to hold the log-in port reservation. If the site will host more than one participant, we will also need the name of the host organization (chapter, station, company, etc.) and the number of people that the host site can accommodate.

If all nine of the log-in ports are already reserved for the course, you can request to be placed on a waiting list. As we establish additional course offerings, those on the waiting list will be contacted.

### **STEP TWO**

The second step is for each individual participant to register. A registration form can be found on the SBE website, [www.sbe.org](http://www.sbe.org). Each individual wishing to attend the course must complete the registration form and return it to the SBE National Office with payment in advance.

Course sites with four or more participants - Course Fee: \$75 per participant  
Course sites with three or fewer participants - Course Fee: \$125 per participant

*~In Memoriam~*

**Robert A. Jones, CSBE**  
**Life Member #1288**  
**and SBE Fellow**

# Last chance to register for the 2008 Leader Skills Series



Your **LAST CHANCE** to register for the highly educational Leader Skills Series is quickly approaching. Do not miss out! Do not hesitate to sign up because spots are still available! This very popular seminar is one you do not want to miss! If you register for the seminar now, you will have taken the first step to make your company better and become a better leader.

The seminar is created **SPECIFICALLY FOR BROADCAST ENGINEERS**. Past attendees have raved about the seminar and so will you and your coworkers.

**"Every aspect was beneficial and relevant,"** Michael Linz said who attended the series in the past.

The Leader-Skills Series is in its 12th consecutive year with SBE. If you are aspiring to have management responsibilities, this course is for you!

**"The leadership training here is spectacular,"** said Jim Skinner, who attended Course I last year.

Many of the **MOST RESPECTED BROADCAST ENGINEERING MANAGERS** in the country today are graduates of the program, you could be one of them!

**"This is what I needed, and now my team will be on the front lines,"** said Benjamin Higley, who also attended Course I last June.

The Leader-Skills Seminars are designed to take technically proficient people and instill in them sound supervisory and management skills. "The series opened my eyes to a whole new way of looking at leadership and challenged me to act," explained Rich Parker, an attendee from 2006.

SBE offers this series in cooperation with instructors Richard D. Cupka and Rodney Vandever. "Dick Cupka is one of the most influential people I have ever in my life had the pleasure to learn from. Rodney Vandever is also most excellent," said Linz. **"I have never been so moved by a speaker and educator in my life."**

Known for his **UNIQUE STYLE OF TEACHING**, Cupka has directed and taught the Leader-Skills seminars to broadcast engineering managers, supervisors and technicians for over 40 years. **"Dick Cupka has been one of the most effective people in my life. I learned more than I ever expected. This program is superb,"** past attendee David Sturgeon said.

This is Cupka's last year instructing the Leader-Skills Seminars before he fully retires, then Vandever will continue on instructing the series in future years. **DO NOT MISS CUPKA'S LAST SEMINAR!**

This year, Course I, "Leadership – The Framework of People Skills" will now be held on September 23-25, instead of June

3-5. The course still takes places at the Holiday Inn Select in Indianapolis.

It covers the function and nature of your leadership role; how to build stronger teams and effective internal cooperativeness; the complex differences of people; and discovery of your natural style of leading and how to nurture a developed style to help you adjust to different people in differing situations. "[Because I attended] I will be a better manager and leader with greater insight," explained Parker.

The cost of the registration for Course I is \$580, which includes three days of instruction, all course materials, a certificate of completion and classroom refreshments. All transportation, housing and meals are the responsibility of the participant. However, a single or double room can be reserved through SBE at the Holiday Inn Select Airport, where the course will be held, at a rate of \$115 per night.

If you would like more information on the SBE Leader-Skills Series, please contact Holly Essex at (317) 846-9000 or [hsex@sb.org](mailto:hsex@sb.org).

## SIGN UP TODAY!

*Where can I find a good job in broadcasting? WHO CAN WE HIRE FOR THAT TECHNICAL POSITION?*

### Resume**BANK**

Deposit your resume where prospective employers can view your profile and make a withdrawal from SBE.

For information on submitting or accessing resumes, contact Scott Jones at [kjones@sbe.org](mailto:kjones@sbe.org) or visit: [www.sbe.org/career\\_resume.php](http://www.sbe.org/career_resume.php)

### Jobs**ONLINE**

Check out the latest broadcast industry job openings across the nation. For information on submitting or accessing positions, contact Scott Jones at [kjones@sbe.org](mailto:kjones@sbe.org) or visit [www.sbe.org/career\\_jobonline.php](http://www.sbe.org/career_jobonline.php)

### Internships**ONLINE**

Let students know the opportunities you have available and place an internship opportunity on the SBE InternshipsOnline webpage. For information on submitting or accessing positions, contact Scott Jones at [kjones@sbe.org](mailto:kjones@sbe.org) or visit [www.sbe.org/career\\_jobonline\\_intern.php](http://www.sbe.org/career_jobonline_intern.php).



# 2008 Leader-Skills Registration

**COURSE INFORMATION:** Each course includes three days (24 hours) of programming, all seminar materials, completion certificate and classroom refreshments. Class size is limited to a minimum of 10 and a maximum of 18 participants per course.

Name of Participant: \_\_\_\_\_ E-mail: \_\_\_\_\_

Company: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Daytime Phone: \_\_\_\_\_

**If someone other than the participant is filling out this form, please provide the following information:**

Company Contact: \_\_\_\_\_ Title: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**COURSE**  **Course I: Leadership – The Framework of People Skills, September 23-25, 2008** (Registration deadline: Aug. 22, 2008)

**PAYMENT INFORMATION:** Registration for each course is \$580. Payment is required in advance via credit card or check (payable to SBE).

Total: \$ \_\_\_\_\_ by (check one):  Check  Visa  MasterCard  American Express

Credit Card No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Security Code: \_\_\_\_\_

Print Cardholder Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**NOTE:** Cancellation, with no substitution, within 10 days of the seminar will result in forfeiture of full registration fee; a \$50 charge may be applied if cancellation, with no substitution, occurs more than 10 days from the seminar.

**HOUSING INFORMATION:** Reservations, if requested, will be made for you at the Holiday Inn Select Indianapolis Airport (site of the Leader-Skills Seminar) by the course organizers. Cost for accommodations is \$115 per night, plus tax.

Request Housing – Course I:  No  Yes, please reserve (circle one) single / double Date Arriving: \_\_\_\_\_ Date Departing: \_\_\_\_\_

Room guarantee required (check one):  Visa  MasterCard  American Express

Credit Card No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Security Code: \_\_\_\_\_

Print Cardholder Name: \_\_\_\_\_ Signature: \_\_\_\_\_

If you have special needs, please specify: \_\_\_\_\_

**MAIL TO:** SBE Leader-Skills Series, Society of Broadcast Engineers, 9102 North Meridian Street, Suite 150, Indianapolis, IN 46260

**OR FAX TO:** (317) 846-9120

**QUESTIONS:** Holly Essex at hessex@sbe.org or (317) 846-9000

<b>OFFICE USE ONLY:</b>	Date Received: _____
Registrant Confirmation: _____	
Hotel Confirmation: _____	

# 2008 Membership Drive comes to a close

**T**he 2008 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 2009 dues for each new member they recruited (up to \$25).

Following is a complete list of winners drawn June 21 at the SBE Executive Committee Meeting held in Indianapolis, Ind.

## 2008 PRIZE WINNERS

### GRAND PRIZE:

**Don Moore** – Chapter 84, Greensboro, NC  
Trip to the 2008 SBE National Meeting in Madison, WI from October 14 – 15  
40” Sony Bravia HDTV 1080i

### FIRST PRIZE

**Mark Persons** – Chapter 17, Brainerd, MN  
-Eton E1XM AM/FM/Shortwave/XM ready Radio  
Courtesy of Westwood One

**John Bisset** – Chapter 110, Manchester, NH  
-Eton E1XM AM/FM/Shortwave/XM ready Radio  
Courtesy of Westwood One

### SECOND PRIZE

**Gary Stigall** – Chapter 36, San Diego, CA  
-Apple IPOD Nano Courtesy of ADC

**Charles Goode** – Chapter 3, Topeka, KS  
-HD Radio Courtesy of Sony

**Gary Stigall** – Chapter 36, San Diego, CA  
-Heil Sound Fin Courtesy of Broadcast Supply  
Worldwide

**Gary Stigall** – Chapter 36, San Diego, CA  
-Yamaha AV Receiver RX-V661 Courtesy of  
Neural Audio

### OTHER PRIZES

**Angelo Figurella** – Chapter 88,  
West Palm Beach, FL  
-\$100 Gift Certificate to L.L. Bean Courtesy of  
Shively Labs

**Laurence Richesin** – Youngstown, FL  
-\$100 Gift Certificate to Amazon.com Courtesy  
of Dielectric

**Michael Tosch** – Chapter 47,  
Thousand Oaks, CA  
-\$75 Gift Certificate to Powell.com Courtesy of  
du Treil, Lundin & Rackley, Inc.

**Leonard Lyon** – Chapter 5, Powder Springs,  
GA  
-NAB Engineering Handbook Courtesy of Na-  
tional Association of Broadcasters

**Charles Barclay** – Chapter 107, Summerville,  
SC  
-HD Radio Implementation by Thomas Ray  
Courtesy of Elsevier

**Charles Youngs** – Chapter 5, Atlanta, GA  
-Antenna Engineering Handbook courtesy of  
McGraw-Hill

**Clay Freinwald** – Chapter 16, Auburn, WA  
-Digital Signage Broadcasting by Lundstrom  
Courtesy of Elsevier

**John Batson** – Chapter 68,  
Birmingham, AL  
-Basic NEC with Broadcast Applications by JL  
Smith Courtesy of Elsevier

**Keith Kintner** – Chapter 80,  
Winneconne, WI  
-Directional Antennas Made Simple by Jack  
Layton courtesy of Layton Technical Services

**Martin Stabbert** – Chapter 139, Reno, NV  
-The Public Inspection File by Jack Layton  
courtesy of Layton Technical Services

**David Priester** – Chapter 140,  
Trumansburg, NY  
-Telos ProFiler Automated Program Archiver  
software Courtesy of Telos Systems / Omnia /  
Axia

**Jim Bernier** – Chapter 5, Alpharetta, GA  
-STABILINE Uninterruptible Power Supply Cour-  
tesy of Superior Electric

**Steven Scott** – Chapter 128, Las Vegas, NV  
**Paul Curtis** – Chapter 132, Columbia, MD  
-Logo Polo shirts Courtesy of Kathrein Scala

**Michael Keller** – Chapter 11, Southboro, MA

-Logo pull over fleece Courtesy of Kathrein  
Scala

**Gary Stigall** – Chapter 36, San Diego, CA  
-Logo Golf Shirt Courtesy of Continental Elec-  
tronics

**Lawrence Van Camp** – Chapter 5,  
Naples, FL

**Mike Curran** – Chapter 36, San Diego, CA  
-1 GB USB Drive Courtesy of Broadcast Elec-  
tronics

**Ronald Sweatte** – Chapter 21,  
Spokane, WA

**H. Fred Stone** – Chapter 33, Dayton, OH

**Everett Helm** – Chapter 124, Portland, OR

**Terry Baun** – Chapter 28, Janesville, WI

**Rodney Zeigler** – Chapter 87,

Lexington, NE

-White ball cap Courtesy of Broadcast Electron-  
ics

**James Seedorf** – Chapter 93, Raleigh, NC

**Paul Burnham** – Chapter 58,

Poughkeepsie, NY

**Tim Neese** – Chapter 86, Swannanoa, NC

**Jim Leifer** – Chapter 53, Boynton Beach, FL

**Vinny Lopez** – Chapter 22, Syracuse, NY

-Logo T-shirt Courtesy of Broadcast Electronics

**Chris Imlay** (Chapter 37), **Don Johnson**  
(Chapter 36), **Rodney Ziegler** (Chapter 87),  
**Martin Stabbert** (Chapter 139), **Enrique**  
**Lopez** (Chapter 38), **Dale Vennes** (Chapter  
56), **Edward Buchan** (Chapter 41), **Charles**  
**Goode** (Chapter 3), **Clay Freinwald** (Chapter  
16), **Jon Thorwaldson** (Chapter 9), **Timo-**  
**thy Holt** (Chapter 70), **Tim Stoffel** (Chapter  
139), **Walter Greenaway** (Chapter 132),  
**James Schoedler** (Chapter 48), **Jack Watts**  
(Chapter 5), **James Hobbs** (Chapter 56),  
**Mark Hill** (Chapter 49), **William Schwartz**  
(Chapter 42), **David McKinley** (Chapter 88),  
**Steve Pietras** (Chapter 104), **Cris Alexander**  
(Chapter 48), **William Mutter** (Chapter 132),  
**Jeff Gibson** (Chapter 3), **Robert Reymont**  
(Chapter 9), **James Seedorf** (Chapter 93)  
-Adjustment Tweaking Tools Courtesy of Conti-  
nental Electronics

# SBE Lifetime Achievement Award

**N**ominations 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 age 55 or older, or have been active in the field for 25 years or more; preferably SBE members in good standing and have retired from active service to the broadcast 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. 14, 2008 should be submitted to the SBE National Office by September 8, 2008. For additional information, please contact Larry Wilkins, CPBE, AMD, CBNT, Awards Committee Chair, at (334) 240-9274, [larrywilkins@charter.net](mailto:larrywilkins@charter.net) or Megan Clappe at (317) 846-9000 or [mclappe@sbe.org](mailto:mclappe@sbe.org).



**A: A) The chassis and, possibly, some exposed metal on the cabinet may become electrically hot to ground. This may also be true of other appliance which utilize a polarized plug rather than a Type B 3-pin plug (also known as NEMA 5-15).**

ANSWER from page 3

## ENNES

EDUCATIONAL  
FOUNDATION TRUST

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

### Harold Ennes Scholarship Fund

- Ronald Capan, Pittsburgh, PA
- Sargent Cathrall, Albany, NY
- Thomas Woods, Milpitas, CA
- Ronald Davis, Rayville, LA
- SBE Chapter 11, Boston, MA
- Smith Media LLC
- Microwave Radio Communications

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.



**Andrea Cummis, CBT, CTO**, is now the Chief Operating Officer of Total RF Productions in Bensalem, PA outside of Philadelphia.

**Jon Bennett, CPBE** was recently awarded the J.J. Freeman Engineering Achievement Award by the Virginia Association of Broadcasters. The award honors Jon for his outstanding contributions to broadcasting in Virginia and one who has shown technical knowledge, dedication, dependability and leadership in broadcast engineering affairs. Jon retired last year after 48 years in the broadcast engineering field.

*If you or someone you know moved, changed positions, or been honored in some way in the broadcast engineering industry, submit details to Member on the Move at [hesssex@sbe.org](mailto:hesssex@sbe.org) or to Attn Holly Essex, 9102 North Meridian St., Suite 150, Indianapolis, IN 46260*

# MARK YOUR CALENDAR

**August 6-8, 2008**

**Texas Association of Broadcasters/Society of Broadcast Engineers 55th Annual Convention and Trade Show**

**Renaissance Austin Hotel; Austin, Texas**

**Sponsored by:** SBE Chapter 79 Austin and the Texas Association of Broadcasters.

**August 27, 9:00am to 5:00pm**  
**Ennes Workshop and Broadcast Equipment Trade Show**

**Holiday Inn Hotel & Suites in Oklahoma City, OK**

**Sponsored by:** SBE Chapter 85 Oklahoma City

**September 23-25, 2008**

**SBE Leader Skills Seminar Course I**

**Indianapolis, Ind. Holiday Inn Select Airport**

**October 7 & 8, 2008**

**SBE Chapter 22 Broadcast & Technology Expo**

**Event Center at Turning Stone Casino & Resort in Verona, NY**

**Sponsored by:** SBE Chapter 22

**October 14-15, 2008**

**2008 SBE National Meeting**  
**Marriott Madison West Hotel, Middleton, (Madison) Wisc.**

**In conjunction with:** The Wisconsin Broadcasters Clinic, presented by SBE Chapter 24, Madison and the Wisconsin Broadcasters Association.

**October 14-16, 2008**

**2008 Broadcasters Clinic**  
**Marriott Madison West Hotel, Middleton, (Madison) Wisc.**

**Sponsored by:** SBE Chapter 24 and the Wisconsin Broadcasters Association

**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 Poulain (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

**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

**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 and Remote Camera Cables

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

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

**Consearch •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 Woehler (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

**DMT USA, Inc. •2003**  
Tom Newman (856) 423-0010  
Television Transmitters, Translators and Antennas

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

**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

**DYMO Corporation •2006**  
Robert Garvey (717) 342-8090  
RHINO Professional Labeling Products

**e2v technologies Inc. •1997**  
Rick Bossert (800) 433-8269, (800) 342-5338  
Klystrons, MSDC IOTs, IOTs, Satcom Amps, TWTs

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

**Electrod 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/Holaday EMF Measurement •2003**  
Dave Seabury (908) 876-5042  
RF Safety Instrumentation

**Excelsior College •2007**  
Andre Adams (518) 464-8777  
Distance Education Degree Programs

**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

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

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

**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

**JDSU •2007**  
Jeff Reynolds (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 Blihek (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 Rassier (208) 762-6121  
Power Quality Products & Services

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

**LP Technologies, Inc. •2006**  
Samuel Lee (316) 816-9696  
Spectrum Analyzers

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

**Mackay Communication •2002**  
Patrick Fisher (919) 850-3164  
Satellite Communications Equipment & Airtime

**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. Parccc (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

**Morrow Technologies, Inc. •2002**  
Tish Boyles (727) 531-4000  
Spectrum Analyzers

**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

**Neural Audio •2006**  
Mark Seigle  
Surround Sound Technologies

**Notl Ltd. •2002**  
Ron Notl (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 Butterbaugh (530) 265-1000  
Routers, Master Control & Terminal Equipment

**Oldcastle Precast, Inc. •2006**  
Douglas Dornas (678) 371-8315  
Precast Buildings/General Construction/Program Management

**OMT Technologies Inc. •2001**  
Ron Paley (888) 665-0501  
Automation, Skimming/Logging Software

**Orban/CR1 •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) 459 5159  
Automation, Routing & Infrastructure

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

**Prophet Systems Innovations •2003**  
John Gager (308) 284-3007  
Audio and Video Content Management

**ProVideo Systems, Inc. •2000**  
Dave Goldsmith (419) 874-2850  
Sales, Consulting, Design & Integration

**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

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

**RF Central, LLC •2005**  
Jeff Wineimiller (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

**Richardson Electronics •1987**  
Chris Chinchilla (800) 348-5580  
Power Grid Tubes

**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

**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

**SignaSys •2005**  
Jeff Wolter (408) 350-7210  
Integration, Support, Training

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

**Stainless LLC/Doty-Moore •2004**  
Les Kutasi (215) 631-1313  
Tower Engineering/Tower Service

**Stantrom/APW •2006**  
Jay McGrath (518) 731-7447  
Equipment Racks

**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

**Strobe Tech, LLC •2008**  
Wes Pimentel (931) 648-8414  
Tower Lighting Experts

**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 (415) 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

**Telex Communications, Inc. •1992**  
Murray Porteous (818) 566-6700  
Intercom Systems, Microphones, Headsets

**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

**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

**Thomson Broadcast & Media Solutions •2000**  
William Powers (404) 929-5007  
TV/Film Production & Broadcast Professionals

**Tefine Technology •2003**  
Kevin Webb (888) 211-6989  
POTS, ISDN Codex & Audio/Video Products

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

**Trilithic, Inc. •2007**  
Art Lesjey (317) 895-3600  
EAS ENDEC Equipment

**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

**Turner Broadcasting/CNN •2007**  
Brad Ramer (404) 827-5020  
Television Engineering Services

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

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

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

**VCI Solutions •2007**  
Kristin Garini (413) 272-7200  
Broadcast Traffic & Automation Solutions

**Venture Technology Group, LLC •2006**  
Larry Rogow (323) 965-5400  
Television Stations

**V-Soft Communications •2002**  
Adam Puls (519) 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

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

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

**Wohler Technologies Inc. •2004**  
Milton Garcia (510) 870-0810  
In-Rack Audio & Video Monitoring

**WSI Lighting •2008**  
Randy Daresum (800) 783-1450  
Lighting Distributor/Obstruction Lighting

**Wysong Enterprises Inc. •2005**  
Rodney Wysong (423) 325-6900  
Helicopter E.N.G. Solutions

# AM Antenna Solutions



**Directional Antenna Systems**



**Diplexer/Triplexer Systems**



**High-Power Antenna Tuning Units**



**RF Components**

**LBA Technology** - your trusted supplier of digital engineered medium wave antenna systems. LBA customized products include high-power **ATUs, Filters, Diplexers, Triplexers, Combiners, Directional Antenna Systems, Grounding and Electromagnetic Shielding, and RF components** for all power levels. We offer complete RF project design, management, procurement and installation services.

LBA enables thousands of broadcasters in the US and worldwide to -

***Reach Farther,  
Sound Better!***

Factory Dealer For:



**OVER  
40 YEARS  
EXPERIENCE  
IN AM**

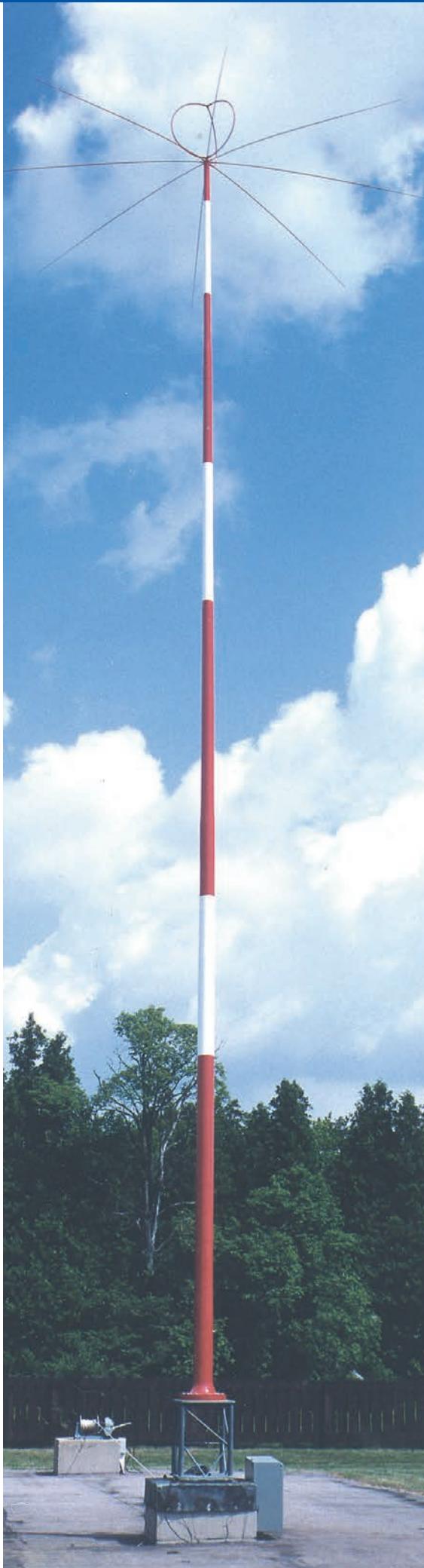
***LBA Technology, Inc.***

3400 Tupper Drive, Greenville, NC 27834  
800-522-4464 / 252-757-0279 Fax: 252-752-9155  
Contact John George at [jgeorge@LBAGroup.com](mailto:jgeorge@LBAGroup.com)

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



SINCE 1963



## **Free Standing AM Broadcasting Antenna**

### **FCC Media Bureau Adopts Simplified Application Procedures for AM Nondirectional Valcom Antennas**

By this Public Notice, the Media Bureau ("Bureau") announces simplified procedures for AM station construction permit applications which specify Valcom antennas. Based on its review of the Valcom field tests and internal reports submitted to the Commission for evaluation, the Bureau announces that it will not routinely require the submission of a proof of performance, current distribution measurements, or a formula for the vertical plane radiation characteristic for nondirectional AM facilities which utilize these antennas.

Thirty (30) Years Proven Experience



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Guelph, Ontario, Canada N1G 3M5  
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Tel: (519) 824-3220 Fax: (519) 824-3411  
Email: [enquiries@valcom-guelph.com](mailto:enquiries@valcom-guelph.com)  
Internet: [www.valcom-guelph.com](http://www.valcom-guelph.com)