



# the SIGNAL

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

**DECEMBER  
2009**

*Volume 22, Number 6*

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on the web yet?*

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## SBE National Meeting coverage



Immediate Past President Barry Thomas, CPBE, CBNT and President Vinny Lopez, CEV, CBNT talk with then EAS Committee Chairman Clay Friendwald, CPBE during the Live SBE National Webcast on October 7. The webcast archive can be viewed online at [www.sbe.org](http://www.sbe.org).

See **MEETING** on page **8**

### "Continuing the Digital Transition" to be Ennes Workshop topic

**T**he Society of Broadcast Engineers (SBE) is serving for the 15th consecutive year as the organizing partner with the National Association of Broadcasters (NAB) for the upcoming NAB Broadcast Engineering Conference (BEC) at the 2010 NAB Show, to be held April 10-15 in Las Vegas. SBE will present the annual Ennes Workshop which kicks off the BEC with a

special all-day program titled, "Continuing the Digital Transition."

SBE member and Ennes Trustee, Fred Baumgartner, CPBE, CBNT, is organizing the program. This year's Ennes Workshop will be held on Saturday, April 10 from 8:00 am to 5:00 pm at the Las Vegas Convention Center

See **ENNES** on page **11**

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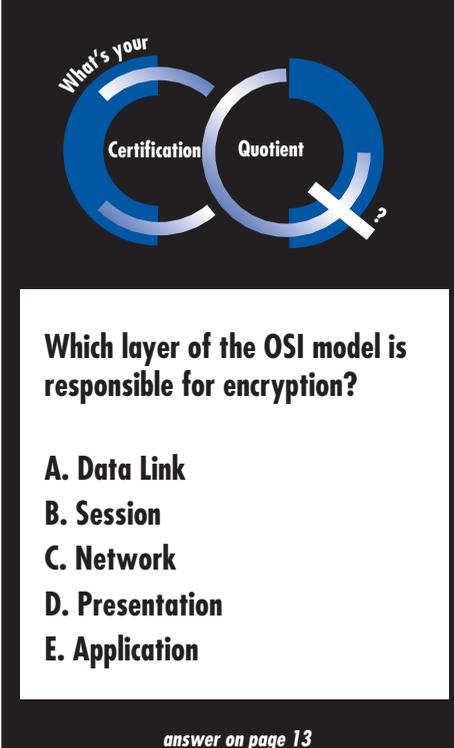
# Fellow nominations now open

**BY Try Pennington, CSRE, CBNT**  
*SBE Fellowship Committee Chair*

Among the members in your chapter, there may be someone who has made a real difference in the chapter over a long period of time; someone who has exhibited a dedication to the advancement of the broadcast engineer, the field of broadcast engineering and the SBE itself. If you have such a person in your chapter, consider nominating him or her for the SBE Fellow rank of membership. The Fellow designation is the highest level of membership and recognition presented to members by the Society of Broadcast Engineers. Members of SBE may earn the Fellow rank through several paths of achievement including conspicuous service, valuable contributions to the advancement of broadcast engineering or its allied professions, or by disseminating their broadcasting knowledge and promoting its application in practice. To nominate a member, candidates must be proposed in writing by a voting member to the Fellowship Committee. The nomination must include a comprehensive professional history of the nominee and the reasons you feel the candidate is deserving of this honor. The nomination must also include the written endorsements of at least five other voting SBE members. All nominations are to be kept confidential. No others besides the nominators and the SBE Fellowship Committee members should be aware of the nomination. Moreover, the nominee should not be made aware that he or she has been nominated.

Nominations for 2010 must be received no later than March 26, 2010 for consideration. The Fellowship Committee will bring the names of nominees to the SBE

Board of Directors for consideration and election at their April 2010 meeting. The SBE secretary will notify those elected. They will receive their award at the SBE National Awards Dinner next fall during the 2010 SBE National Meeting. Seventy two members have been recognized with the Fellow honor in SBE's 45 years of existence. If there is a member in your chapter who has provided distinguished service in the field of broadcast engineering or to the chapter or at the national level, this is an opportunity for your chapter members to prepare a nomination for that person. Nominations for Fellow are to be submitted to Fellowship Committee Chair: Troy Pennington, CSRE CBNT, 6156 Hampton Hall Way, Hermitage, TN 37076 or to troy.pennington@cumulus.com.



**Which layer of the OSI model is responsible for encryption?**

- A. Data Link**
- B. Session**
- C. Network**
- D. Presentation**
- E. Application**

*answer on page 13*

# Your retention please ...

BY Vinny Lopez, CEV, CBNT

SBE General Counsel



**W**elcome to my first *Signal* article as your SBE president. As we move forward, I have high hopes for the upcoming year that we can continue to work towards the goals and expectations that our members have for both me and our current board of directors. As past president Barry Thomas always said, “It is indeed the job of the president to execute the will of the board”, and I believe in that philosophy as well. While I don’t have a solitary topic for this article, I consider it a get to know me article with some random thoughts to boot. So here we go...

Many of you may not know how I got to where I am today, so a little background info is in order. It was 1997, at the SBE22 Regional convention in Syracuse, NY. This was the first year that SBE did not have its own annual convention, and began to team with regional shows for the fall meeting. I was the chairman of chapter 22 at the time, and can remember sitting for most of the board meeting as a spectator. During one of the breaks, board member (and former

chapter 22 member) Jim Bernier introduced me to then society president and vice-president, Terry Baun and Ed Miller. We had a nice chat, during which they encouraged me to run for national office, which I did- unsuccessfully the first two times. I was elected to the board on the third try in 2000, and was sworn in at the Pittsburgh regional convention. I served 2 and a half terms on the board, then served as Secretary, and Vice-President, before being elected to the top job. Our goals for this year are many. We will be continuing on our educational initiatives through our Education Committee, chaired by David Priester and with our first full time education director, Kimberly Kissel. We will add courses to SBE University; we are looking at more on-line sessions like our RF Safety course. We are looking at an online version of our Leader Skills Seminar as well as other on-line topics. We will be releasing a new version of CertPreview as well. I also hope you have had a chance to check out the new updated JobsOnline service. This gives members an interactive and efficient way to search for jobs in the industry.

Another exciting thing that has already happened is that in early November, Chris Imlay, John Poray and I traveled to the

FCC for some face to face meetings with each commissioner’s staff on some key topics of interest to broadcast engineers. As I am writing this before these meetings happen, I don’t have many details to share at this time, but look for an upcoming netcast on our trip to DC sometime soon.

SBE is a member focused organization. We are constantly listening to the needs and wants of our members. We do our best to try and respond with creative solutions for our members. The trouble here is we can’t be all things to all people. We are just not a big enough organization to pull this off. We have to carefully analyze all our programs, and see which ones give us the biggest benefit for our limited resources. Don’t get me wrong here, SBE is not abandoning any of our programs. We still intend to continue with everything we have done in the past, we just have to carefully evaluate what we do and “does it get us the benefit we want”.

The SBE Board of Directors has done an excellent job of defining the Society, and what we need to do to serve our members to our best abilities. I am pleased and honored to be working with such a fine group of ladies and gentlemen. I think it’s going to be a good year.

## Nominate your chapter or member you know for the 2009-10 National Awards

The National Awards Committee was created to recognize those who go above and beyond in the industry and Society. Award category descriptions and nomination forms are available online at [www.sbe.org](http://www.sbe.org). If you have any questions please contact Awards Chairman Jim Leifer, CPBE at [jimleifer@hotmail.com](mailto:jimleifer@hotmail.com) or Megan Clappe at [mclappe@sbe.org](mailto:mclappe@sbe.org).

# Doing that stand-up routine in D.C.



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

**Y**ou have probably heard me say this before, but the good old days were when everyone had a voice at the FCC. I am talking about the late 1970s and early 1980s, when I first started working for licensees of the Agency. It was a smaller Agency

then, and the staff was available to speak with you pretty much whenever you wanted to trot over to 1919 M Street, N.W. You could walk right in the door, and head for the office of the guy that was working on the application you were interested in, or just to chat about some new idea you might have. It was polite to call first, but often, “lobbying by walking around” worked just as well. I notice that those career FCC guys that have been there as long as I have are still the most pleasant folks to deal with there. It was even easy to get an appointment with an FCC Commissioner, to discuss a regulatory issue that these days would be far too mundane to capture any Commissioner’s attention.

Filing comments in rulemaking proceedings was easier then too. You filed your comments on paper, took with you the right number of copies, and served the folks at the Commission who would be interested in the proceeding with their own copy, just to make sure they read it. It was enough to file your comments and reply comments then. It isn’t now. Now, the staff is extremely busy and there are far more dockets, and far more political pressure on the agency, and if anyone is still filing comments and believing that the Commissioners are reading them, think again. It is ironic, really; now that it is very easy to file comments electronically with FCC, it is harder to get the Commission’s attention when you do.

The great thing about SBE (and about any association that does government advocacy on behalf of its members), is that SBE has the capacity to do active, in-person government advocacy – the standup routine in D.C. If we file rulemaking comments, or a petition for reconsideration with the FCC on behalf of broadcast engineers, we know that won’t be the end of the advocacy effort. It can’t be, or the effort won’t be effective. So we meet with the staff, or the Commissioners’ offices, and make our point (far more concisely than we explain the point in written comments, in fact). Often, the best method of getting your point across at FCC isn’t the filing of written documents at all. It is building coalitions of groups who have similar or complimentary interests. So we go to the FCC with Sprint-Nextel,

or with MSTV, or NAB, or sometimes all three. It is the way of things these days. And it works, sometimes very well.

Recently, early in November, newly-elected SBE President Vinny Lopez, SBE Executive Director John Poray and I visited each of the Commissioners’ offices to argue our position on Clarity Media (Trucker TV) and the TV White Spaces proceeding; two of the more active dockets in which SBE has taken an interest over the past few years. Frankly, this was the first good opportunity to introduce the three newest Commissioners, including the Chairman, to SBE and to the work of broadcast engineers. We went ourselves this time, because in addition to noting the specifically technical problems of the Clarity proposal and the interference potential of White Spaces Devices to both DTV reception and to wireless microphones (and the desperate need for additional spectrum for wireless mics) we wanted the Commissioners’ offices to know, many for the first time, the RF environment in which broadcast engineers must ply their trade.

What is interesting in meeting with the legal assistants of FCC Commissioners is how eager they are to meet people like Vinny Lopez, or Barry Thomas, or other SBE officers who have first-hand knowledge and practical experience with the technologies that we are educating them about. They are used to hearing from communications lawyers like me, or lobbyists, but it isn’t every day that they can hear first hand what the problems are in engineering an ENG shot from a remote truck to a receive site over a long path with an intervening Clarity omnidirectional Trucker TV transmission in between. They can hear first hand of the problems with wireless microphones failing in the middle of an ENG shot due to interference from a White Spaces Device (or an unlicensed Part 74 wireless mic from a church or playhouse near a live shot. It really is effective, because it is believable.

While in Washington, the SBE delegation also met with our “strategic partners” at NAB and MSTV, to discuss outstanding docket proceedings of common interest. We shared information and coordinated some further FCC activities in the various proceedings in which our organizations are currently engaged, together and separately. A productive two days, to say the least. SBE’s refocus in its advocacy program, using as a metric for our active participation the benefit to the member, should not be taken by anyone to be a deemphasis on government advocacy. Quite the reverse. We will be doing more BAS spectrum protection, for example, than we have done before. We will be doing much of it the way it most benefits the members – doing the old stand-up routine in D.C.



# Certification's Alphabet Soup

## What's with all the letters?

BY **Chris Scherer, CPBE, CBNT**

**Y**ou already know that the SBE created the Program of Certification more than 30 years ago. It was created to establish a benchmark of technical ability and quickly became the de facto standard in broadcasting. You already know that SBE Certification is an ideal way to show your interest in your own career. What you might not know is what all the letters mean and how to get them added to your name.

First, why do we have the initials to represent the certifications? It's a shorthand. The full title is descriptive, but if you hold more than one certification, it can become quite a laundry list. It's mainly a simpler way to show your accomplishment.

Because SBE Certification is so well established, the Society began the process of registering the various names and initialisms. Many of the designations now carry the registration mark. For a review, Table 1 shows the levels and their initials. You will see that a few names and initialisms are not yet registered. It is possible to hold more than one certification. As you see in my byline, I hold two. Some levels advance in the same track, so an individual would not hold a CBRE and CSRE at the same time. In some cases, having all the certifications listed can become an alphabet soup. There are some examples below.

So what does one do with all the letters when several levels are held? You don't have to list any, of course.

You don't have to list them all, either, although it certainly is impressive. Some people choose to list only the highest certification. Whatever you choose to choose, it is important to use the designations properly.

Also note that if you allow your certification to lapse, you cannot use the name or the initials at all.

When multiple levels are held, there is a hierarchy to determine how the initials should be arranged. Each level includes an experience requirement, so the highest certification comes first. Then there are a few parameters to follow in ordering the others.

While CBT and CBNT have no experience requirement, CBT is considered higher than the CBNT so it would precede it.

Specialist certifications are associated

with a host certification, so those initials are placed after the highest host. For example, AMD would follow CSRE.

Want some examples? Here are some real members and their current certifications:

- Jerry Massey, CPBE, 8-VSB, AMD, DRB CBNT
- Andrea Cummis, CBT, CTO
- Erick Steinberg, CSRE, AMD, CBTE 8-VSB, CBNT
- Note Erick's AMD follows his CSRE and his 8-VSB follows his CBTE.
- John Ross, CSRE, AMD, DRB, CSTE 8-VSB, CEA, CEV, CBNT
- Again, the specialist follows the corresponding host. In John's case, the CEA and CEV could be in either order.

If you hold SBE Certification, display it proudly. Include it on your business

cards. Have it included on the staff list at the station and on the station website. You earned it, so display it, and display it properly.

**Table 1.** The Color key indicates the experience required.

<b>CPBE® – Certified Professional Broadcast Engineers®</b>
<b>CSTE® – Certified Senior Television Engineer</b>
<b>CSRE® – Certified Senior Radio Engineer</b>
<b>CBTE® – Certified Broadcast Television Engineer</b>
<b>CBRE® – Certified Broadcast Radio Engineer</b>
<b>CEV® – Certified Video Engineer®</b>
<b>CEA® – Certified Audio Engineer®</b>
<b>CBT – Certified Broadcast Technologist®</b>
<b>CBNT® – Certified Broadcast Networking Technologist®</b>
<b>CTO® – Certified Television Operator®</b>
<b>CRO – Certified Radio Operator®</b>
<b>AMD – AM Directional Specialist</b>
<b>8-VSB – 8-VSB Specialist</b>
<b>DRB – Digital Radio Broadcast Specialist</b>

- 20 years
- 10 years
- 5 years
- Entry Level
- Synced to Certification of 5-20 years

# 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.

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Joseph Davis, Manassas, VA – Chapter 37  
David French, Clifton Park, NY – Chapter 58  
Steve Sandlin, Huntsville, TX – Chapter 99  
Christopher Scott, Bowling Green, OH – Chapter 103

**CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)**  
John Caluger, Hendersonville, TN – Ch. 103

**CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)**  
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Thomas Kraemer, Frisco, TX – Chapter 67  
Randolph Pratt, Crowley, TX – Chapter 67  
Christopher Tarr, Mukwonago, WI – Chapter 28

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George Parson, Canton, CT – Chapter 14

### SBE CERTIFIED SCHOOL COURSE COMPLETION

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**NAPA VALLEY COLLEGE**  
Justin Bernard, Napa, CA  
Kisung Lee, Union City, CA – Chapter 40

### AES EXAMS

**CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)**  
Andrew Funk, Westbury, NY – Chapter 105

**CERTIFIED SENIOR RADIO ENGINEER (CSRE®)**  
Robert Meuser, New York, NY – Ch 15  
Jeffrey Smith, Monroe Township, NJ – Chapter 15

**CERTIFIED AUDIO ENGINEER® (CEA®)**  
Bradley Giardiello, Owings Mills, MD – Chapter 46  
Alan Peterson, Springfield, VA – Chapter 37

**CERTIFIED BROADCAST TECHNOLOGIST® (CBT)**  
Alan Peterson, Springfield, VA – Chapter 37

**CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)**  
Jonathan Abrams, Jersey City, NJ – Ch. 15  
Robert Meuser, New York, NY – Chapter 15

### SPECIAL PROCTORED EXAMS

**CERTIFIED SENIOR TELEVISION ENGINEER (CSTE®)**  
Shawn Moore, Eldersburg, MD – Ch. 132

**CERTIFIED BROADCAST RADIO ENGINEER (CBRE®)**  
Stephen Smit, Seattle, WA – Chapter 16

### CERTIFIED BY LICENSE

**CERTIFIED BROADCAST TECHNOLOGIST® (CBT)**  
Garrett Bohannon, Washington, DC – Ch. 37  
William Jones, Flower Mound, TX – Ch. 67  
Steven Pinch, Napa, CA – Chapter 40  
Robert Romonosky, Harrisburg, IL – Ch. 121

### CERTIFIED RADIO OPERATOR® (CRO®)

**CERTIFIED RADIO OPERATOR® (CRO)**  
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Ben Fleming, Monroe, MI

### PASADENA CITY COLLEGE

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Alexander Andres  
Evelyn Bocanegra  
Steve Delamater  
Joram Dugay  
Michael Esquivel  
Mike Anthony Estrada  
Cristian Garcia  
Federico Garcia  
Patrick Harris  
Alexander Solis

### CERTIFIED TELEVISION OPERATOR® (CTO®)

**CERTIFIED TELEVISION OPERATOR® (CTO®)**  
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Norris Embry, Hawthorne, FL  
Mike Garner, Broomfield, CO  
Johnathan Hunt, Los Angeles, CA  
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Peter Wold, Los Angeles, CA  
Daniel Wong, Los Angeles, CA  
Ramon Villavicencio, Los Angeles, CA

### 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®)**  
Steven Hess, Valrico, FL – Chapter 39

**CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®) 8-VSB SPECIALIST (8-VSB) AM DIRECTIONAL SPECIALIST (AMD) DIGITAL RADIO BROADCAST SPECIALIST (DRB)**  
Dennis Baldrige, Hillsboro, WI – Ch. 24

**CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®) 8-VSB SPECIALIST (8-VSB)**  
Charles Keiler, Fort Lauderdale, FL – Chapter 53

**CERTIFIED BROADCAST TELEVISION ENGINEER (CBTE®)**  
Dan Brown, Natick, MA – Chapter 11  
Terry Johnson, Charlotte, NC – Chapter 45  
Klyde Layon, Highland, CA – Chapter 47  
Chad Potter, Rex, GA – Chapter 5

**CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)**  
Dennis Baldrige, Hillsboro, WI – Ch. 24  
Anthony Guerra, Toronto, Ontario Canada

**CERTIFIED BROADCAST TECHNOLOGIST® (CBT)**  
Jasper Catahan, Toronto, Ontario Canada  
James Johnson, Port Neches, TX – Ch. 134  
Francine Maness, San Antonio, TX – Chapter 69  
Shannon Upchurch, Powder Springs, GA – Chapter 5  
Thomas Walker, Mt. Airy, MD – Chapter 41  
James White, Evanston, IL – Chapter 26

**CERTIFIED TELEVISION OPERATOR® (CTO®)**  
Mark Clark, Little Rock, AR  
Fuad Cuzmar, Albuquerque, NM  
Gregory Foss, Riverside, CA – Chapter 131  
Myles Knowles, Kihei, HI – Chapter 63  
Letricia Lawson, Dayton, OH  
Gregg Tomczak, Duluth, MN  
Timothy Williams, Kearney, NE – Chapter 87  
Bradley Wright, Little Rock, AR  
Brian Zylstra, Clearwater, FL

## 2009-2010 SBE COMMITTEE CHAIRS

**S**BE President Vinny Lopez, CEV, CBNT, has named the committee chairs for 2009-10 as listed below. The committees are responsible for developing SBE policies and programs at the national level. All committees report to the Board of Directors.

**Awards**.....James E. Leifer, CPBE  
jimleifer@hotmail.com

**By-Laws**.....Gary Liebisch, CPBE  
gary.liebisch@nautel.com

**Certification**.....Jim Bernier, CPBE, CBNT  
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**Chapter Liaison**.....Mark Heller, CBRE, CTO  
wgbw@sol.net

**EAS**.....Ralph Beaver, CBT  
bevo@mediaalert.com

**Education**.....David Priester, CPBE  
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**Fellowship**.....Troy Pennington, CSRE, CBNT  
troy.pennington@cumulus.com

**Finance**.....Jerry Massey, CPBE, CBNT, 8-VSB, AMD, DRB  
jmassey@entercom.com

**Frequency Coordination**.....Joe Snelson, CPBE  
joe.snelson@meridith.com

**Government Relations**...Barry Thomas, CPBE, CBNT  
barryt@sbe.org

**International**.....Chuck Kelly  
chuck.kelly@nautel.com

**IT Strategy**.....Mark T. Simpson, CPBE, AMD, CBNT  
mark.simpson@citcomm.com

**Marketing & PR**.....Chris Scherer, CPBE, CBNT  
cscherer@sbe.org

**Membership**.....Scott Mason, CPBE  
scmason@cbs.com

**Nominations**.....James E. Leifer, CPBE  
jim.leifer@hotmail.com

**Publications**.....Conrad Trautmann, CPBE  
ctrautmann@dia-global.com

**Strategic Planning**....Ralph Hogan, CPBE, DRB, CBNT  
rhogan@kjzz.org

**Student Chapter Subcommittee**.Jeff Smith, CEA, CBNT  
jeffsmith@clearchannel.com

**Sustaining Membership**.....Scott Mason, CPBE  
scmason@cbs.com



Membership Drive winner Steve Lopez, CBNT, and a trip for two to attend the SBE National Meeting. Pictured here with President Vinny Lopez, CEV, CBNT.

President Vinny Lopez, CEV, CBNT presented a certificate to John Heimerl, CPBE (above left) and Christopher H. Scherer, CBPE, CBNT (above right) honoring them as the newest SBE Fellows during the National Awards Ceremony on October 7.



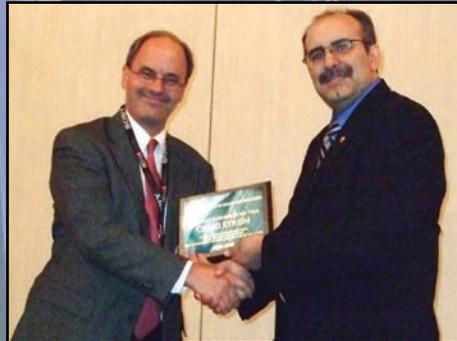
Chapter 22 Convention Chairman Tom McNicholl, CBTE and Chapter Chairman Chris Baycura, CEV was recognized for co-hosting the SBE National Meeting by Executive Director John Poray, CAE.



Retired FCC enforcement Bureau special counsel, Riley Hollingsworth was presented a thank you gift by President Vinny Lopez, CEV, CBNT for speaking at the SBE National Awards Dinner.



Tim Anderson, CSRE, DRB, CBNT accepts the award for Best Technical Article presented by President Vinny Lopez, CEV, CBNT.



Craig Strom accepted the award for Broadcast Engineer of the Year presented by President Vinny Lopez, CEV, CBNT.



Doug Garlinger, CPBE, 8-VSB, CBNT accept the award for Educator of the Year presented by President Vinny Lopez, CEV, CBNT on behalf of Fred Baumgartner, CPBE, CBNT.



President Vinny Lopez, CEV, CBNT stands with Dane E. Erickson, P.E. CSRTE, 8-VSB, CBNT, Christopher H. Scherer, CBPE, CBNT, Scott Mason, CPBE, Chris Baycura, CEV, Tom McNicholl, CBTE and Tim Anderson, CSRE, DRB, CBNT after presenting them with Chapter Awards during the SBE National Awards Ceremony held at the Turning Stone Resort and Casino as part of the SBE National Meeting.



Steve Pietras won the SBE National President Vinny



Paul Burnham, CSTE, CBT won a Netbook courtesy of Vislink News & Entertainment presented by Vinny Lopez, CEV, CBNT during the SBE Membership Meeting.



Students from the Cayuga Community College recorded a live webcast of the SBE Membership Meeting.



Left: Executive Director John Poray, CAE presented Immediate Past President Barry Thomas, CPBE, CBNT, with the collection of publications during his two years of service and the past president's gavel plaque during the Membership Meeting.



During the Membership Meeting Jeff Miller, CTO was recognized for receiving the Ennes Youth Scholarship.

(L-R): Executive Director John Poray, CAE, President Vinny Lopez, CEV, CBNT, Past President Ed Miller, CPBE, Jeff Miller, CTO, Immediate Past President Barry Thomas, CPBE, CBNT and Past President Chris Scherer, CPBE, CBNT.



Above Left: President Vinny Lopez, CEV, CBNT introduces the 2010 Board of Directors (L-R): Christopher H. Scherer, CPBE, CBNT, Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT, Ralph Hogan, CPBE, DRB, CBNT, Jim Leifer, CPBE, Ted Hand, CPBE, 8-VSB, AMD, David Priester, CPBE, Andrea Cummis, CBT, CTO, Joe Snelson, CPBE, 8-VSB, Ralph Beaver, CBT, Jim Bernier, CPBE, CBNT, Scott Mason, CPBE, Jeff Smith, CSRE, CBNT and Mark Simpson, CPBE, AMD, CBNT (not pictured).

Above Right: SBE General Counsel Chris Imlay, CBT inducted the newly elected Directors Christopher H. Scherer, CPBE, CBNT, Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT, Jim Leifer, CPBE, David Priester, CPBE, and Joe Snelson, CPBE, 8-VSB during the SBE Membership Meeting on October 7.



SBE members and guests attended the 2009 SBE National Awards Dinner. This annual event was held at the Turning Stone Resort and Casino in Verona, N.Y. as part of the SBE National Meeting, in conjunction with the Chapter 22 37th annual Broadcast & Technology Expo.

*The Society of Broadcast Engineers would like to thank Vislink News & Entertainment & Kathrein Inc., Scala Division for sponsoring the 2009 National Awards Dinner & Annual Fellows Breakfast*



# SBE Education Survey Summary

## September – October 2009



David Priester

**BY David Priester, CPBE**

*SBE Education Committee Chairman*

**A**s part of the Education committee's long range planning efforts a survey

related to continuing education was sent to members via email on September 24. The goal was to find out how members feel about the current services, better understand the topics they desire, and how and when it is convenient. Members had three weeks to complete the survey. Following is a summary of the findings.

4173 members received the survey via email. 1002 members responded to at least some of the survey (24%), while 848 of those completed the entire survey (20%).

96.6% of respondents said that continuing education is important to them.

74.5% of respondents are using SBE for their continuing education needs. 25.5% are not.

82.8% of respondents said their employers provide work time (at least sometimes) to participate in continuing education. 17.2% said employer does not. 67.5% of respondents said their employers cover costs (at least sometimes) to participate in continuing education. 32.5% said employer does not.

32% of respondents stated that they take 2-3 days of continuing education per year. 11% (102 respondents) said they take zero days of continuing education

per year. That said, 89% of respondents take at least one day per year.

The most important factors in deciding whether or not to take a course were (1) quality and (2) relevant topic, followed by (3) ability to take course any-time, day or night, (4) cost, (5) available online, (6) location – near where I live, (7) meets (re)certification requirements, (8) course length and (9) recommended by another member, in that order.

Highest rated listed subjects includes: Digital Television, Digital Radio, Broad-band Technologies, Broadcast Engineering Fundamentals, Broadcast Engineering Management, EAS, New Media Technologies, New Receiver and Transmitter Technologies, Data Broadcasting Technologies and Applications.

Members could list other topics of interest. One that seemed to come up the most was IT.

Only 5% of respondents have taken a course on SBE University. 74% of respondents said they are considering taking an online course. 53.4% thought that SBE University is beneficial and valuable to them as a way to learn. 44.6% were indifferent (maybe due in part to having never taken a course through SBE University).

33.3% of respondents have attended an Ennes Workshop. 85.5% of respondents would consider going to an Ennes Workshop. 56% of respondents think that Ennes Workshops are valuable and beneficial to them as a way to learn. 42.8% were indifferent (maybe due in

part to having never been to an Ennes Workshop).

95.1% of respondents thought it was at least 'Somewhat Important' for SBE to offer a leadership / management development course designed for broadcast engineers. The top three factors people consider when deciding whether or not to attend the Leadership Development Course in order are: Location, followed by Registration Cost and Travel Costs. Course dates came in at a close 4th.

Days of the week that would be most convenient for members to attend the Leadership Development Course (3 day course): 36% said Friday, Saturday and Sunday, followed by 29.5% that said Tuesday, Wednesday and Thursday, and 28.8% that said Monday, Tuesday and Wednesday. 27.4% thought Wednesday, Thursday and Friday would be most convenient. 26.2% thought Saturday, Sunday and Monday would be most convenient. One could conclude that the weekday options (chosen by 764 respondents) were preferred over the options offering weekend days (chosen by 555 respondents).

Top months that respondents would be unavailable for this three-day course:

31.8% December  
26% November  
40% said any month is fine

Destinations respondents would consider traveling to for the Leadership Development Course:

28.3% (252) - Las Vegas  
23.3% (208) - Chicago  
20.6% (184) - Atlanta  
20.2% (180) - Washington, D.C.  
19.1% (170) - Indianapolis

see **EDUCATION** on page 14

the **SIGNAL**

**ENNES** from page 1

and will directly address the issues of the digital transition, featuring some of the best topical experts in the industry. Here are just some of the topics and speakers confirmed for the program:

The Workshop will open at 8:00 am with Audio over IP Tutorial with Media Technology Consultant, Skip Pizzi. This will be an introduction to AoIP systems and their application to radio broadcasting systems.

The Next Generation of EAS will be discussed by Clay Freinwald, CPBE, RF Engineer with Entercom and long-time member and former chairman of the SBE's EAS Committee. With a new EAS System and the Common Alerting Protocol (CAP) on the horizon, Clay will provide the latest information surrounding the advances and they will impact broadcasters and broadcast engineering.

Richard Chernock of Triveni Digital will present, Considerations for adding MobileDTV to a Broadcast Station. ATSC MobileDTV is a new, emerging technology. Richard will discuss the considerations necessary for adding MobileDTV.

Peter Symes, Director of Standards & Engineering with the Society of Motion Picture and Television Engineers (SMPTE), will provide an update on new broadcasting standards in those in the works.

Terry Baun, CPBE, AMD, CBNT, Director of Engineering and Operations of the Wisconsin Educational Communications Board, will present Management/Media Skills and the Future of Broadcast Engineering. This wide-ranging presentation will discuss the relationship between senior station management and engineering, the importance for engineers to see the "larger view" of station operational goals. It will also cover the training and skill-sets needed by today and in the future for

today's broadcast engineer. The session will conclude with audience discussion about the future of the broadcast engineering profession.

Hal Kneller, CPBE, DRB, AMD, CBNT, Market Development Manager at Nautel, Ltd., will discuss the current issues surrounding HD Radio™; the power increase, industry status and the challenges facing equipment manufacturers and broadcasters who wish to implement the technology at elevated power levels. Results of the studies conducted by NPR Labs and commercial broadcasters to show interference versus coverage improvements will be shared.

Wireless Mics after the DTV Transition will be presented by Ralph Beaver, CBT, President and CEO of Media Alert, LLC. The FCC Part 74 licensed wireless mic spectrum has changed drastically and misinformation runs deep. Ralph will help unscramble the wireless mystery and provide useful information for a "perfect broadcast."

Since 1989, the Ennes Educational Foundation Trust has sponsored close to 70 educational workshops and tutorials across the United States. The annual NAB Las Vegas Ennes Workshop is always well attended and one of the highlights of the NAB BEC.

To attend the Ennes Workshop during the NAB BEC, you must be registered through NAB for the full Broadcast Engineering Conference. Watch for a complete program description in the February issue

of The SBE Signal and in January, on the SBE website, [www.sbe.org](http://www.sbe.org).

A nine-member committee, chaired by Joe Snelson, CPBE of Meredith Broadcasting, along with NAB staff and SBE/Ennes representatives, are engaged in the planning the six-day BEC. Other members of the committee include: Dom Bordonaro, CSRE, Cox Radio; Michael Cooney, CSRE, Beasley Broadcast Group; David Folsom, Raycom Media; Thomas Hankinson, ABC; Jim Kutzner, PBS; Andy Laird, Journal Broadcast Group; Glenn Reitmeier, NBC Universal and Jeff Smith, Clear Channel Radio.

Working with the committee in addition to SBE/Ennes representative Fred Baumgartner, CPBE are John Marino of NAB and John Poray of SBE.

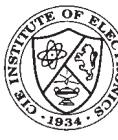
Papers for the conference were recently selected by the committee. The complete program will be available on the NAB website, [www.nab.org](http://www.nab.org), in January. Registration and hotel information can also be found at the NAB website.

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President

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# A brief look back and then forward ...



David Priester

BY **John Poray, CAE**  
SBE Executive Director

**T**he SBE National Meeting, held October 6-7 in Verona, N.Y. with Chapter 22's Broadcast

& Technology Expo, was a great success. Hundreds of SBE members and students attended the trade show and the technical papers presented by the chapter. The National events were well attended too. Be sure to check out the article and photos in this issue of the Signal.

This was the 37th regional convention produced in the Central New York area and the members of Chapter 22 know how to do it. The average attendee saw a smooth running event with lots of quality vendors, good paper presentations and enjoyable social opportunities. Our thanks to Chapter 22 for hosting the National Meeting and a special thank you as well for their work to produce the SBE National Webcast. If you missed it, the one-hour webcast is available for viewing by visiting the SBE website.

The national board of directors met during the National Meeting and among their action was to approve an operating budget for 2010. In spite of pressures on income and expenses (we feel them too), the budget keeps all membership dues at their current levels for another year.

The board also approved the national committee chair appointments as proposed by incoming president, Vinny Lopez, CEV, CBNT. A list of the new chairman assignments can be found on page seven of this issue of the Signal.

One of our national committees is

the Chapter Liaison Committee, chaired this next 12 months by first-time board member, Mark Heller, CBRE, CTO of Two Rivers, Wis. Part of the responsibilities of Mark's committee is to assign each member of the board to serve as a liaison to a number of chapters. Those assignments can be found on the SBE website in the "Chapter Info/Chapter Administration" section. In this capacity, the board member serves as a resource to the chapter for ideas and support, a sounding board for chapter leadership and a communication conduit between the chapter and the national board. Call on your liaison whenever you have a question, need or concern related to your chapter or your membership.

### Chapter Rebate Reminder

Chapter chairs and secretaries are reminded that the SBE National Office supplies ready-made forms to report your chapter meeting programs, attendance and annual election of chapter officers. All are available on the SBE website in the Chapter Info/Administration section. Chapters that submit evidence of five or more meetings held during 2009, using these forms or adequate substitutes, will be eligible to receive a cash rebate

of a portion of National dues paid by local members. The rebate will be paid in June of 2010 and is to be used to support the chapter's programs. Meeting reports should be submitted to the National Office by January 15, 2010.

### Membership Renewal Made Easy

Membership renewal time will be coming up in just a couple of months and you'll be able to accomplish your renewal quickly, easily and securely with SBE's new on-line, automated member renewal system using a credit card. Your renewal mailing, coming in early February, will provide the details.

At this holiday time I'd like to extend best wishes to all members and a special thank you to the many of you who serve in leadership positions within the 114 SBE local chapters and at the national level. Your efforts are what make SBE the successful organization it is. I hope you enjoy the holidays.



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## SBE Certification 2009-10 Exam Schedule

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

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

## New Members

Lynne W. Alexander - Tucson, AZ  
William A. Gibson - Seattle, WA  
Rodney W. Simon - Chicago, IL  
Franklin Thomas - Grapevine, TX  
Kenneth R. Cook - Eugene, OR  
Michael J. Holick - Bryan, TX  
Michael Turfler - Brandywine, MD  
James E. Whedbee - Gladstone, MO  
Robbie Winter - Littleton, CO  
William A. Delehanty - Stoughton, WI  
T. Brian O'Neal - Ridgeway, TN  
Charles H. Ferry, Jr. - Cary, NC  
Shane L. Fortin - San Diego, CA  
Matt W. Hall - San Diego, CA  
Mark A. Johnson - Fairfax, VA  
Juan Ramirez - Brownsville, TX

Kwok Man Cliff Wong - Kowloon, Hong Kong  
Thomas C. Ballister - Truckee, CA  
Justin Berrum - San Diego, CA  
Luis Contreras - Gilroy, CA  
Alan J. Shea - Goshen, IN  
Frank Gardner - Winter Garden, FL  
Justin Bernard - Napa, CA  
Peter Bankwitz - Detroit, MI  
Bryan Black - Overton, TX  
Thomas L. HUBLEY - Marion, IL  
Chan Kam Wing - NT, Hong Kong  
Juan J. Sigona Perez - Durango, Mexico  
Alfredo Gonzalez - Perris, CA  
Dan MacDonald - Sandy, OR  
Todd Sprinkle - West Chester, PA

## New Student Members

Brett Patram - Solon, OH  
Arthur Elie - Miami, FL  
Marissa Acosta - Somerville, MA  
Kim Pong Chan - Kowloon, Hong Kong  
Wai Oi Che - Kowloon, Hong Kong  
Man Kit Cheng - New Territories, Hong Kong  
Yuk Fung Cheung - Kowloon, Hong Kong  
Kwok Ching - NT, Hong Kong  
Cher Chung - NT, Hong Kong  
Wong Chung Yiu - Kwun Tong, Hong Kong  
Ka Ki Ho - Kowloon, Hong Kong  
Kam Ming Ho - Kowloon, Hong Kong  
Tsang Hon Ching - NT, Hong Kong  
Cheng Ka Man - Chai Wan, Hong Kong  
Leung Ka Ue - Kowloon, Hong Kong  
So Ka Yu - Kowloon, Hong Kong  
Wan Lai Ho - Tseung Kwan O, Hong Kong  
Ka Lok Lam - Kowloon, Hong Kong  
Wan Wui Lam - Kowloon City, Hong Kong  
Ka Lok Lee - Kowloon, Hong Kong  
Kwok Ming Lee - NT, Hong Kong  
Man Chun Li - Shau Kez Wan, Hong Kong  
Ho Lai Mak - NT, Hong Kong  
Wong Man Ho - NT, Hong Kong  
Siu Hang Mok - Aberdeen, Hong Kong  
John Mole - Corona, CA  
Tsz Ki Ng - NT, Hong Kong  
Hong Yan Pang - Kowloon, Hong Kong  
Chung Man Seto - Kowloon, Hong Kong  
Tsun Kei Soo - Kowloon, Hong Kong  
Fok Wang Cheng - , Hong Kong  
So William - NT, Hong Kong

Tsz Fung Wong - Shau Ki Wan, Hong Kong  
Wing Ki Wu - New Territories, Hong Kong  
Pak Wai Yeung - NT, Hong Kong  
Mitchell Disbro - Tacoma, WA  
Sam P. Cracchiolo - Wesley Chapel, FL  
Nicholas J. Holub - Puyallup, WA  
Christopher I. Brown - Tacoma, WA

## New Associate Members

Duncan Boggs - San Antonio, TX  
Tom Platt - Phoenix, AZ  
Gary Schwab - Yorba Linda, CA

## Reinstated Members

Scott D. Nelson - Plano, TX  
Ronald C. Barnes - Marion, CT  
Stephen E. Dinkel - Lees Summit, MO  
Richard H. Madouse - Elkhorn, WI  
Jeffrey Williamson - San Diego, CA  
Derik A. Bazemore - Freeport, NY  
Stanley J. Chayka - Manheim, PA  
Joseph M. Fleming - Rochester, NY  
Rick J. Hutchason - Converse, TX  
Jeffrey S. Heimburger - Phoenix, AZ  
Paulette Hooker - Dallas, TX  
Emir Onat - San Diego, CA  
James R. Romeo - Vancouver, WA  
Timothy E. Berry - Knoxville, TN  
Billy F. Schultze - Honolulu, HI

## Reinstated Senior Members

Richard F. Arsenault - Three Churches, WV

### Questions or comments?

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

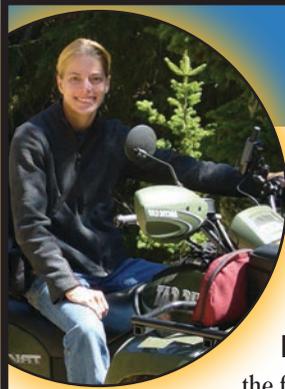
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dhennessey@sbe.org



**Answer:**  
**(D) Presentation Layer**

question on page 3



# In the Circle ... *a snapshot of an SBE Member*

**Amanda Alexander, CBT** Chief Engineer, Crawford Broadcasting; Denver, Colo.

Joined SBE in 2006, Chapter 48

**Focal Point:** I value the networking in SBE. I have made several friends through the SBE with other engineers. Through these friendships I am able to learn more, I can count on these gentlemen to help me if needed as well as me help them if they need it.

**Involvement with SBE:** SBE I attend several SBE meetings every year. I participate in the IRLP HamNet held the first and third Saturdays of each month. This is a place several engineers around the Denver Metro area come to talk about the things happening at their local stations and to also get help with various things if needed.

**Job Satisfaction:** There's not just one aspect of my job I like most. I love the fact that I get to do a little bit of everything. I get to work on computers. I get to work on transmitters. I get to mow and work outside. It all excites me. Most people do just one thing for their job. I get to do a bit of everything. I get to really enjoy the Colorado weather because I'm not always stuck inside behind a desk.

**Getting Started:** I grew up around the industry. As a young girl I'd go to my dad's office and run around and I got to see everything. I also was allowed to help out some with various projects my dad was involved in with at the company.

**Pictured Here:** This is me on my ATV in the Stillwater Pass area near Granby, Colo.

## EDUCATION *from page 10*

76% of respondents said they have not attended a webinar such as the RF Safety Course. 93.7% said they would consider attending one in the future. 71% of respondents thought Webinars were beneficial and valuable to them as a way to learn. 26% were indifferent. 1.7% (15ppl) do not think they are beneficial.

Time of day people prefer to participate in a webinar:

21.9% preferred the afternoon  
(Eastern)

18.6% preferred the morning  
(Eastern)

16.6% had no preference

Days of the week members would not be available for a live webinar:

45.3% noted Sunday

39.7% noted Saturday

35.1% said any day is fine

57 names were submitted as potential experts who might be willing to contribute to SBE's education efforts. The national office, in conjunction with the education committee, is working to contact and confirm their interest in reviewing, creating or presenting education.

Immediate goals for using the information gleaned from this survey include identifying relevant topics and instructors to create SBE University self-study courses and webinars, especially as they relate to preparing members for certification or recertification.

The detailed survey findings are available on our website at [www.sbe.org](http://www.sbe.org) under Education / SBE's Role.

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**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 Broadcast Solutions\*2008**  
Marc Minnihan (206) 299-9990  
Systems Integrator

**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

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

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

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

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

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

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

**Broadcast Microwave Services, Inc.\*1997**  
Russell Murphy - East / Jim Kubit - West  
(540) 932-3660, (805) 581-4566  
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

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

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

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

**Continental Electronics Corporation\*1976**  
Michael Troje (800) 733-5011  
AM & FM IBOC Transmitters

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

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

**Dejero Labs\*2009**  
Bogdan Frusina, CTO (519) 886-8070  
Complete Cellular ENG Platform

**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

**DigiTenna, LLC\*2009**  
Brad Eckwielen (920) 564-6224  
Television Reception Antenna Manufacturing

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

**DTS\*2009**  
Mark Seigle (425) 814-3200

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

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

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

**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

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

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

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

**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

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

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

**HD World\*2006**  
Michael Driscoll (203) 371-6322  
HD World Conference & Exposition

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

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

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

**JDSU\*2007**  
Brigitte Robbins (919) 338-5061

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

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

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

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

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

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

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

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

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

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

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

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

**Middle Atlantic Products\*2005**  
David Amoscatto (973) 839-1011  
Enclosures, Power, Accessories, Furniture

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

**MoreCom, Inc. \*2009**  
Kyle Moorehead (763) 533-5535  
Networking & AV Construction

**Moseley Associates, Inc.\*1977**  
Dave Chancey (805) 968-9621  
RF & T1 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

**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

**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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Stainless LLC/Doty-Moore\*2004**  
Ed Deetscree (215) 631-1323  
Tower Engineering/Tower Service

**Superior Electric\*1995**  
Michael J. Miga (860) 585-4552  
Power Protection Equipment

**Sutro Tower, Inc.\*1989**  
Gene Zastrow (415) 681-8850  
Broadcast Tower Leasing

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

**Technostrobe \*2009**  
Francis Lacombe (877) 578-7623  
FAA lights - High Intensity

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

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

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

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

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

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

**Tieline Technology\*2003**  
Kevin Webb (317) 845-8000  
POTS, ISDN, Codecs & AV Products

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

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

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

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

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

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

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

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

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

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

# Hilights, Inc.

IT'S IMPRESSIVE, WHAT WE DO

Hilights is a provider of premier services for the antenna tower industry. We have serviced towers in every corner of the lower 48 states. We are available for weekend and night service and work in conjunction with broadcast engineers to minimize downtime and provide a safe working environment.



Hilights focuses on the core requirements of tower maintenance by providing the following essential services:

Install, Repair, and Maintain:

- Antenna Systems
- Transmission Lines
- Obstruction Lights
- Elevators

Hilights maintains a staff of trained field technicians supported by fleet trucks and field inventory. Hilights prides itself on 'doing the job right the first time'. We attribute this to superior field personnel training and by providing skilled centralized technical support staff.

[WWW.HILIGHTSINC.COM](http://WWW.HILIGHTSINC.COM)

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