

# SIGNAL

BIMONTHLY PUBLICATION OF THE SOCIETY OF BROADCAST ENGINEERS

#### AUGUST 2010

Volume 23, Number 4

The "broadbandwagon"

Board of Directors Election Coverage

SBE Membership Drive Winners Announced

Spotlight on SBE Chapter 66

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# John Luff named SBE Broadcast Engineer of the Year

he Society of Broadcast Engineers has announced the winners of its 2010 SBE National Awards. Winners will be recognized at the Society's National Awards Dinner on October 27 in Madison, Wis. The event is part of the annual SBE National Meeting, which is being held in conjunction with SBE Chapter 24 and the Wisconsin Broadcasters Association (WBA) at the Madison Marriott West Hotel.

The winner of the **SBE Broadcast Engineer of the Year Award** is **John Luff**. Luff has been a member of SBE since 1984.

Luff was nominated for this prestigious award for the work he has done in the broadcast engineering industry as well as on a local level within SBE Chapter 20, Pittsburgh Pa. Luff is currently a



John Luff

media technology consultant and has his own company, HD Consulting, in Sewickley, Pa. His resume includes senior vice president business development at AZCAR, founder and president of Synergistic Technologies

Inc., engineering manager at TPC Communications, as well as volunter services as chairman of SBE Chapter 20 and conference vice president at SMPTE.

Recently, Luff has provided new energy and leadership to his chapter, which was facing declining participation. He changed the meetings from a monthly format in order to have meetings whenever an important topic and expert presenters were

See AWARDS on page 2

# New and Improved CertPreview now available

BE has overhauled SBE CertPreview and it is now available and better than ever. The new and improved SBE Cert-Prevew is the easiest and most convenient way to prepare for your SBE Certification Exam. It is the only application SBE offers that provides a real representation of the certification exam content.

Compatible with both Windows and Macintosh computers, the new SBE CertPreview allows you to download CertPreview from the

SBE website immediately after purchasing the software online. If you cannot use an Internet connection you may purchase a CD version that will be mailed to you. The downloaded version is only \$29 and the CD is \$33 plus \$3.00 shipping and handling.

The new SBE CertPreview contains over 100 sample questions for each certification level that it covers. You have the ability to review your answers prior to scoring the sample exam

See CERTPREVIEW on page 9

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#### **AWARDS** from page 1

available to present more detailed technology. He accomplished this by using his significant contacts to arrange for industry experts to present at his chapter meetings. Over 70 members attended the event he organized on 3D technology. He held the event at NEP Broadcasting in Pittsburgh, Pa. and had presenters George Hoover, CTO from NEP and representatives from PACE 3D cameras. To increase participation, Luff set up a Yahoo Groups site to provide quick communications to local members.

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

The **2010 SBE Educator of the Year Award** will be presented to **Charles 'Buc' Fitch, P.E., CPBE, AMD**. Fitch has been a member of SBE since 1975 and certified since 1976. Fitch was nominated for his 40-year-plus contributions to educating the industry through articles, presentations and committee work, not only in mainstream technical areas of broadcasting but also important adjacent technologies such as Numerical Electromagnetic Code (NEC), project management and collateral regulations.

Fitch has been an important contributor to industry publications. In this past year, he has continued a successful reccurring feature in *Radio World* called "Certification Corner," which is aimed at helping readers understand and prepare for the SBE certification exams. With this feature his goals are to educate and familiarize exam takers with the scope of the certification exams, motivate potential candidates and reinforce the professional aspects of the SBE Certification Program. To read Fitch's "Certification Corner" visit http://www.rwonline.com/section/certification-corner.

Another series of articles called "Milestones" utilizes his passion for the history of the industry and the roles of broadcast engineers. In this series he looks back and reflects on important technological achievements in communications on both the broadcast and consumer sides. He has written on such diverse topics as the Marti RPU receiver and the proliferation of early automobile radio receivers. In one stretch he profiled several 1 kW transmitter models that helped change the industry. "Milestones" can be read at http://www.rwonline.com/section/milestones.

The award for **Best Technical Article, Book or Program by a SBE Member** goes to **Doug Irwin, CPBE, AMD, DRB** for his article, "The Future of Radio" in Radio magazine's December 2009 issue. To read Irwin's article, visit http://radiomagonline.com/features/radio trends technologythe future/.

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

#### **Best Chapter Website:**

**Chapter 54: Hampton Roads, Va.** To see their website visit www.sbe54.org.

#### **Best Regional Conference:**

Chapter 24: Madison, Wis.

#### **Best Chapter Newsletter:**

Class A: Chapter 24: Madison, Wis.

#### STATISTICAL AWARDS

By class (A= 31 or fewer members, B= 32 or more members)

#### **Most Certified**

- A) Chapter 140 Ithaca, N.Y.
- B) Chapter 131 Inland Empire, Calif.

#### **Greatest Percentage Growth**

- A) Chapter 136, Rio Grande, Texas
- B) Chapter 144, Hong Kong

# Highest Member Attendance Percentage

- A) Chapter 143 Mid MO, Missouri
- B) Chapter 76, Eugene, Ore.

Our thanks to the SBE National Awards Committee, chaired by Jim Leifer, CPBE and committee members Leonard Charles, CPBE, Bill Ryall and Marcelo Sanchez, CPBE.



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# Chapter 24, Madison, Wis. to host national meeting

he 2010 National Meeting of the Society of Broadcast Engineers will be held on October 26-27 at the Marriott Madison West Hotel, 1313 John Q Hammons Drive in Middleton, Wis. The event will be hosted by Chapter 24 of Madison. The National Meeting is being held in conjunction with the Wisconsin Broadcasters Clinic, held October 26-28, which is sponsored by the Wisconsin Broadcasters Association (WBA) and SBE Chapter 24.

The Clinic is one of the longest running broadcast engineering conferences in the United States. It includes technical papers and panel presentations over all three days and an equipment trade show on the first two days. Registration and more information may be made by going to the WBA website, www. wi-broadcasters.org and clicking on "Broadcasters Clinic." Chapter 24, the WBA and SBE invite any and all SBE members and others interested in broadcast technology to attend. All activities will be held at the Marriott Hotel. A special guest room rate of \$ 109 single, \$129 double has been arranged for attendees of the National Meeting and Clinic. To make reservations, call (800) 236-1922 and ask for the special WBA rate. The cutoff date for reservations is October 11. After that, rooms are available subject to a space and rate-available basis.

The SBE National Meeting begins on Tuesday, October 26 (all times CDT) with a meeting of the SBE Certification Committee from 2:00 pm to 4:00 pm. The regular fall meeting of the SBE national Board of Directors will be held beginning at 6:00 pm and will run until about 10:00 pm.

National Meeting activities continue on Wednesday, October 27, with the annual SBE Fellows Breakfast from 8:00 am to 9:00 am. All SBE Fellows are invited to attend and will be guests of the SBE. SBE National officers and the Chapter 24 chairman and convention chairman are also invited. A special invitation will go to this group in late August. Reservations are required.

The SBE Annual Membership Meeting will be held from 4:00 pm to 5:00 pm. The meeting will include the induction of newly elected members of the Board and officers, recogni-



Skyline of downtown Madison, Wis; the SBE National meeting will be held at the Madison Marriott West Hotel.

tion of the SBE Membership Drive Grand Prize winner, John Ramsey of Hartford, Conn. and several brief reports and updates on national SBE activities. With the assistance of Chapter 24, the SBE Annual Membership Meeting will be streamed live via the Internet. More information on how to log-on and watch the meeting will be available beginning in September.

At 5:00 pm, the SBE National Reception will be held in the hotel's beautiful atrium and will include cocktails, hor's doerves and live music. The reception will be followed at 6:00 pm by the SBE National Awards Dinner from 6:00 pm to 8:45 pm. The dinner program will include a special guest speaker, the presentation of the SBE Broadcast Engineer of the Year to John Luff and the SBE Educator of the Year Award to Charles "Buc" Fitch, P.E., CPBE, AMD. Two members will be recognized with the highest membership rank awarded by the SBE, the SBE Fellow: Sterling Davis, Vice President of Engineering, Cox Media Group in Atlanta, Ga. and Robert Locke, CPBE, CBNT, Chief Engineer for KPTS-TV in Maize, Kan. Chapters and individual members will also be recognized during the dinner for best technical article, best chapter newsletter, website, regional conference, most certified chapter and chapters with the greatest percentage growth and highest average member attendance at chapter meetings.

Tickets for the reception and dinner are just \$15 and may be ordered on-line at http://sbe.org/cal\_conv.php and scroll down to "SBE National Meeting." Tickets may also be ordered by calling the SBE National Office at (317) 846-9000.

We hope to see many of you in Madison for this year's SBE National Meeting and the Wisconsin Broadcasters Clinic.

AUGUST 2010 3

# vlopez@sbe.org

four letter word meaning actively and attentively engaged in work or a pastime, not at leisure; otherwise engaged - Busy. It has been a really busy time around SBE land in the past couple months.

Let's go back a little bit, the newest version of SBE CertPreview was released for sale. We held off a bit on the release because we wanted it to be correct right out of the gate, so we fixed all the little problems before they became bigger ones on your computers. I want to send kudos out to the Certification Committee and Megan Clappe, our Certification Director for a job well done on the new software. If you are thinking about recertifying or getting certified, check out the new SBE CertPreview at www.sbe.org and stand by, because later in this article I will tell you how you could win a free copy of SBE CertPreview.

One thing that has kept us busy during the last couple of months was the Broadcast Engineering Forum held on June 25 at the FCC. We had caught wind a couple of weeks before the summer Executive Committee (EC) meeting on June 12 that this was going to happen, and were waiting for our invitations. After all, you can't have a broadcast engineering conference without the Society of Broadcast Engineers, or so we thought.

# 38 across

#### by Vinny Lopez, CEV®, CBNT®

SBE President

We hadn't received any invites, and in fact were stonewalled when we called the FCC to inquire about getting some representation. We had heard some mentions about some who may be participating, but nothing official.

During the EC meeting we discussed this issue at length. It was decided to take our concerns to the top with a letter to FCC Chairman Genochowski, pointing out that the singular organization representing broadcast engineers throughout the country did not have a seat at a broadcast engineering forum, and that it seemed like disservice to our organization- one that has a rich history of cooperation with the FCC.

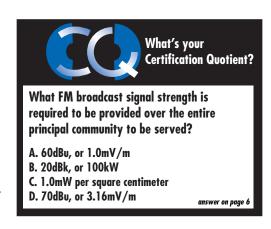
I also want to clarify that we were not "whining because we weren't invited" but were extremely concerned that the FCC is seeking to make "broadcast engineering" decisions without the input of broadcast engineers... that the selection process of invitees was not transparent and was a cause for more concern.

The day following the FCC's receipt of our letter, John Poray received a call from the FCC, offering us invitations to the forum. Due to prior commitments here at WSYT, I was unable to attend but I asked SBE Vice President Ralph Hogan, CPBE, DRB, CBNT and SBE Director Joe Snelson, CPBE, 8-VSB to represent the Society. Joe participated in the "Methodologies for Repacking the TV Band" group while Ralph participated in the "Improvements in VHF Reception" group. To see a replay of the public portion of the forum, go to http://reboot.fcc. gov/video-archives. To look at the output of each working group, visit http:// reboot.fcc.gov/workshops/broadcastengineering-forum.

We still need members to contact their

representatives and senators regarding our 2 bills, \$2881 and HR 4809. SBE has sample letters and lists of representatives and senators on the website at http://sbe. org/pub\_sc.php#Helpisneeded. Time is running out in this legislative session and we need to try and move these bills along. If they do not make it this year, we run the risk of them not being introduced in the next session in January, so let's make every effort to do as much as we can to help achieve our goal.

For the past few months, I have been talking about a little newsletter contest. If you look at the titles of my Signal articles since I became president, they all have something in common. If you can identify what that commonality is, now is your chance to win something nice. Send an e-mail to vlopez@sbe.org with your guess as to what the commonality is. We'll put all the correct entries in a drawing, pick three winners and send each of you a copy of the new SBE CertPreview! In case you can't remember, some article titles were: "Springtime", "As Time Goes By", "Out of Sight, Out of Mind", "Your Retention Please", and this month's "38 Across". Deadline to get entries to me is August 31 and you do need to be a current member to enter. We'll publish the corect answer and winners in the next edition of The Signal.



# The national broadbandwagon plan



by Chris Imlay, CBT®
SBE General Counsel

his isn't really news.

President Obama signed a
Presidential Memorandum
on June 8, 2010 entitled
Unleashing the Wireless Broadband
Revolution. This committed the
federal government to find an
available 500 MHz of federal and
commercial spectrum over the

next 10 years for reallocation to broadband. The President said that this spectrum will foster investment, economic growth and help create hundreds of thousands of jobs by meeting the "burgeoning demand" for mobile and fixed broadband, other "high-value uses" and benefits for other industries. Currently, wireless companies have about 534 megahertz allotted to them. That number will double in the next ten years, apparently.

The FCC's National Broadband Plan released earlier this year recommended of course the exact same thing. Of the 500 MHz to be harvested and reallocated to broadband, 300 megahertz must be between 225 MHz and 3.7 GHz for mobile use within five years. In my last column, I described this as an element of the "Perfect Storm" for the TV broadcast bands. Since then, the FCC has proposed to revise the rules for the Wireless Communications Service (WCS) bands at 2305-2320 and 2345-2360 MHz so that 25 megahertz of that spectrum will be available for mobile use. The FCC has also already held their controversial "Broadcast Engineering Forum" on June 25, 2010, which explored the cellularization of broadcast architecture; the use of distributed antenna systems, methods for repacking the TV band, "improvements" in VHF reception; and advancements in compression technology. Cynics among us would suggest that this move on FCC's part was simply to develop a record that will allow it to do what the Broadband Plan has already established as a goal: the reallocation of 120 MHz of television core channel spectrum for broadband according to the plan. So, the bandwagon is picking up speed and everyone, including President Obama, is jumping on. Having that happen is like adding a supercharger to the bandwagon. It is soon going to be going too fast to be under control.

I have always thought that spectrum planning should be a lot like land use planning. Cities and counties have a master plan, developed after hearings and a lot of public input. It is supposed to be good for a long period of time, because it represents the broad goals the residents and the local government want to achieve, and it paints a "picture" (a big

one) of what collectively the people want the city or county to look like twenty years or so later. Then, after developing, refining, honing and adopting the master plan, you make individual zoning decisions about individual parcels of land that are consistent with and which further that master plan. Spectrum allocations should be like that as well, I think. Individual spectrum allocations decisions should be based on a master plan, which paints a "big picture" of spectrum use ten or twenty years hence. Internationally, that is kind of how it works. Domestically, well, not so much.

FCC doesn't have a domestic master plan. The National Broadband Plan is not a master plan. It is surely enough a component of a master plan, but only one component. What we are left to ponder is what the rest of the spectrum landscape is going to look like when the National Broadband Plan is effectuated. What will traditional, over-the-air broadcast television look like? We don't know, because that is not part of the plan. We thought we knew, since the DTV conversion was a partial spectrum plan as well. But that partial master plan didn't last long. What will private land mobile radio look like? Broadcast auxiliary and microwave allocations used for video production? Amateur radio? We aren't given that vision by the FCC, and we aren't being asked to help shape it. We don't know what the consequences of the reallocation of the 500 megahertz for broadband will be on the rest of the landscape, partially because we don't know what the architects of the National Broadband Plan intended for the residual landscape to be after the reallocation, or even whether that mattered to them. All we are asked to do is to comment on what the effect will be of individual actions taken pursuant to the partial plan favored today, which has a single focus. We are asked to react, not proact. It is difficult not to become cynical in a purely reactive spectrum planning environment.

Perhaps the free market model (i.e. no master plan) for spectrum allocations is being relied on here, in which case what television broadcasting and other incumbent radio services look like post-broadband reallocation is whatever the market values most highly. That indeed seems to be the explanation. White House officials said the reallocation of spectrum would be voluntary, employing tools such as proceeds of spectrum auctions to compensate those who agree to relinquish their "unused or under-used" spectrum.

Indeed, money seems to be a large underpinning of the National Broadband Plan. According to the Fact Sheet distributed by the White House about the Memorandum: "The Administration has no official estimate of the auction revenues from this plan. The actual amount will depend on effective



# **Upgrade your Certification**

by Megan E. Clappe SBE Certification Director

ave you thought about upgrading your current SBE Certification? Certifications are based on your years of experience in the broadcast engineering field.

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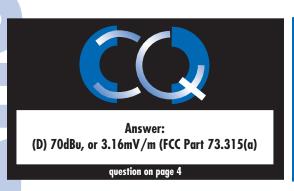
For instance, if you hold a five-year level certification (CBRE, CBTE, CEA and CEV) and you are up for recertification, consider applying for and taking the Certified Senior Television or Senior Radio Engineer exam. The exam consists of 50 multiple choice questions and a choice out of three essay questions. Three hours are alloted to take the exam and it is "open-book" except for the essay (that portion is closed-book).

To help you study for any of the certification exams, you can use the reference list of suggested books available on the SBE website and the new SBE CertPreview.

If you have any questions about what certification would be right for you, please contact me at mclappe@sbe.org.

#### **Employer Notification**

Something you may consider when you apply for certification is your option to request a letter be sent to your employer from the SBE President. This letter would state that you have obtained a level of SBE Certification. While the certification itself looks good on a resume, this letter "steps it up" to acknowledge your efforts for career improvement in the broadcast engineering field. (Certification applicants can request the employer letter when they are filling out the certification or recertification application.) The employer letter is only sent out when the applicant passes an exam.



# **SBE Certification 2010-11 Exam Schedule**

**Dates** Location **Application Deadline** August 6-16, 2010 **Local Chapters** CLOSED November 5-15, 2010 **Local Chapters** September 17, 2010 **Local Chapters** December 31, 2010 February 4-14, 2011 April 12, 2011 NAB Convention March 25, 2011 June 3-13, 2011 **Local Chapters** April 15, 2011 August 5-15, 2011 **Local Chapters** June 3, 2011

#### **BANDWAGON** from page 5

implementation and additional design details, but based on past auctions, many analysts believe the revenue potential could reach in the tens of billions of dollars. The proceeds would be invested in public safety, additional job-creating infrastructure investments and deficit reduction."

But it is overly simplistic, and perhaps overly cynical to think that this is just crass commercialism at work here. The Presidential Memorandum also recommends that "[t]he FCC, within the next 10 years, should free up a new, contiguous nationwide band for unlicensed use." This would provide "new opportunities for innovation through free, unlicensed use of spectrum by technology startups, individual users, and others." Furthermore, auction revenues will allow additional investment in public safety and infrastructure and that "a critical part of this spectrum initiative" will be to provide funding to help build a nationwide interoperable mobile broadband network

for public safety, which would include 'next generation' technologies.

The White House praised FCC Chairman Genachowski and his team, who put together the National Broadband Plan. But that is the problem. The plan was put together behind closed doors and it is not a comprehensive master plan that addresses the effect of its success on incumbents: the workhorse services that are potentially profoundly affected by the success of the Plan. Now, according to the Memorandum, the government is "pursuing a separate fast-track process to identify a down payment of specific bands of spectrum that could be freed up."

Whatever the model, the National Broadband Plan looks a lot like a bandwagon that is being jumped on by everyone in Washington, regardless of political party, and regardless of the effect of the reallocation of spectrum (the volume of which has already been decided as a matter of policy), on incumbent services. The bandwagon has no brakes, folks, and it is picking up speed. The sad part is that we can't really get out of the way.

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# 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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# CERTIFIED BROADCAST TECHNOLOGIST $^{\circ}$ (CBT $^{\text{TM}}$ )

David Christensen, Holladay, UT – Chapter 62 Mark Rogers, Sacramento, CA – Chapter 43 Ben Slater, Laramie, WY – Chapter 129

#### CERTIFIED RADIO OPERATOR $^{\circ}$ (CRO $^{\text{TM}}$ )

Brendan Collett, Tampa, FL – Chapter 39 Tyler Crane, Tampa, FL – Chapter 39 Michael Ranon, Tampa, FL – Chapter 39

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

Robert Blazewicz, Gloucester, MA – Chapter 11 Chun Wing Lau, Hong Kong – Chapter 144 Lam Leung Wang, Hong Kong – Chapter 144 Yeung Hing Sung, Hong Kong – Chapter 144

#### **SPECIAL PROCTORED EXAMS**

# CERTIFIED SENIOR TELEVISION ENGINEER<sup>TM</sup> (CSTE®)

Paul Boykin, Green Cove Springs, FL – Chapter 42

# CERTIFIED SENIOR RADIO ENGINEER™ (CSRE®)

Brien Laufer, Torrance, CA – Chapter 47

#### **CERTIFIED BY LICENSE**

# CERTIFIED BROADCAST TECHNOLOGIST® (CBTTM)

Christopher Bailey, Moscow, ID — Chapter 117 Wesley Brofford, Lancaster, OH — Chapter 52 Charles Leyrer, Las Vegas, NV — Chapter 128 Joseph Pietrzyk, Phoenix, AZ — Chapter 9 Roland Robinson, Tacoma, WA — Chapter 16 Donald Williams, Louisville, KY — Chapter 35

#### CERTIFIED RADIO OPERATOR® (CRO™)

#### CERTIFIED RADIO OPERATOR® (CROTM)

Thomas Alexander, Cullowhee, NC Barry Brigham, Waynesville, NC Daniel Davidson, Twin Falls, ID Brian Graham, Cullowhee, NC Fern Lulham, East Sussex, England Dustin Newcombe, Stanley, NC Garrett Richardson, Winston Salem, NC

## CHESAPEAKE CENTER FOR SCIENCE AND TECHNOLOGY

Famous Spellman, Chesapeake, VA

#### PASADENA CITY COLLEGE

Adam Battice
Erik Chew
Victor Cornejo
Maria Flores
Ernesto Garcia
Sampson Hill
Jefferson Jimenez
Jessie Lopez
Rebecca Nesler
Richard Rosales
Hasmik Pohosyan
Jonathan Scott
Matthew Tapia
Amber Trillo

# CERTIFIED TELEVISION OPERATOR® (CTO®)

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

Zachary Bortle, Tacoma, WA

#### KENT STATE UNIVERSITY

Rachel Hunter Carla Johl Jeremy Markowitz William Rose Logan Seaman Ryan Sposito Vaughn Stull

#### 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®)

Dave Brawdy, Pullman, WA – Chapter 117

Robert Gehman, Gainesville, FL – Chapter 42 R. Steve McNeal, Collelville, TX – Chapter 67

## CERTIFIED SENIOR RADIO ENGINEER<sup>TM</sup> (CSRF®)

Jeffery Caudell, Huntersville, NC – Chapter 45 Joseph Mate, North Olmsted, OH – Chapter 70 Tony Peterle, North Miami Beach, FL – Chapter 53

## CERTIFIED SENIOR TELEVISION ENGINEER $^{\mathrm{TM}}$ (CSTE $^{\circ}$ )

Walcott Denison, III, Vail, AZ – Chapter 32 Sean Downs, Waukesha, WI – Chapter 28 Joseph Mate, North Olmsted, OH – Chapter 70 David Riffle, Rohnert Park, CA – Chapter 40 Walter Williams, Sr., Columbus, GA – Chapter 118

# CERTIFIED BROADCAST RADIO/TELEVISION ENGINEER $^{TM}$ (CBRT $^{TM}$ )

Leon Amstutz, Upland, IN – Chapter 30 David Buckowski, Clovia, CA – Chapter 66 Richard Garofalo, Park Ridge, IL – Chapter 26

# CERTIFIED BROADCAST RADIO ENGINEER $^{TM}$ (CBRE $^{\odot}$ )

Jesus Gomez, San Juan, P.R. – Chapter 142

## CERTIFIED BROADCAST TELEVISION ENGINEER™ (CBTE®)

Mary Ahmed, Fontana, CA – Chapter 47
Gary Keener, San Antonio, TX – Chapter 69
James Malone, St. Louis, MO – Chapter 143
Timothy Mance, Dallas, OR – Chapter 124
Michael Moore, Unicoi, TN – Chapter 113
Gary Schaut, Amherst, NY – Chapter 133
Christopher Wilde, Des Moines, IA – Chapter 109

#### CERTIFIED AUDIO ENGINEER® (CEA®)

Paul Clark, South Bend, IN – Chapter 30

#### CERTIFIED VIDEO ENGINEER® (CEV®)

Michael Graziano, Suffield, CT - Chapter 14

# CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)

David Buckowski, Clovia, CA – Chapter 66 Stuart McRae, Grapevine, TX – Chapter 67 Joseph Mate, North Olmsted, OH – Chapter 70 Art Mistretta, Moreno Valley, CA - Chapter 131 Jerald Rathbun, Mesa, AZ – Chapter 9

# CERTIFIED BROADCAST TECHNOLOGIST® (CBTTM)

Thomas Bruce, Canyon Lake, TX – Chapter 69 Robert Carlough, Boca Raton, FL – Chapter 53 Dennis Grainani, New City, NY – Chapter 15 Michael Graziano, Suffield, CT – Chapter 14 Eric Khentigan, Cromwell, CT – Chapter 14 John Majka, Louisville, KY – Chapter 35 William Mixter, Hanover, PA – Chapter 41 Tony Reina, Houston, TX – Chapter 105

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

Stephen Coss, Littleton, CO Rodney Freed, Martin, TN Terrell Freeman, Dallas, GA Kevin John, Nordheim, TX Sandee Roys, Moreno Valley, CA – Chapter 131 Phillip Schmidt, Vancouver, WA Martin Wilhelm, Denver, CO

#### CERTIFIED RADIO OPERATOR $^{\circ}$ (CRO $^{\text{TM}}$ )

Richard Coutee, Shreveport, LA Friend Weller, Logan, UT – Chapter 62

# Vote for your National SBE Board of Directors

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

One candidate is running for each of the four officer positions of president, vice president, secretary and treasurer. There are 11 candidates running for the six at-large director seats being contested this year. A complete list of candidates with photographs is included with this article.

The Nominations Committee was chaired this year by Board member, Jim Leifer, CPBE, Director of Engineering and IT, Clear Channel Communications, South Florida. Jim and his committee assembled a slate of candidates who have agreed to commit their time and expertise to serve on the Board, if elected. Members of the committee included Bill Ryall, Director of Engineering at Nassau Broadcasting- Maine Group, Portland, Maine; Leonard Charles, CPBE Director

of Engineering, Morgan Murphy Media, Midwest, Madison, Wis.; Jim Schoedler, CBNT, Schoedler & Associates, Denver, Colo.

The official ballot was sent via USPS First Class mail to all voting members of SBE. That includes Member, Senior and Fellow members and the voting member representative of each of SBE's Sustaining Member companies. If you don't receive a ballot by August 6, please contact Holly Essex at the National Office at (317) 846-9000 or hessex@sbe.org.

Information about each candidate and their responses to questions about the Society will be included in the official ballot packet. You are encouraged to take time to review the descriptions and opinions of the candidates contained in the ballot, make your selections, and return the ballot to the SBE National Office so that it arrives no later than Thursday, August 26. Use the special election return envelope provided. Please mail early, allowing at least five business days for your ballot to reach the National Office. Allow two weeks if you are outside the United States. Each year a number of ballots are received at the National Office after the election is over and consequently cannot

be included in the tabulation.

The ballots will be tabulated the night of August 27th by the official Board of Tellers, consisting of members of Chapter 25 in Indianapolis and central Indiana. Candidates will be notified the following day of the results. Those elected will take office during an induction ceremony held at the SBE National Meeting on October 27, in Madison, Wis. The National Meeting is being held in conjunction with the Wisconsin Broadcasters Clinic, sponsored by Chapter 24 of Madison and the Wisconsin Broadcasters Association.

The list of candidates as submitted by the Nominations Committee includes:



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



Vice President
Ralph Hogan, CPBE,
DRB, CBNT
Director of Engineering
KJZZ-FM/KBAQ-FM
Tempe, AZ





Secretary
Ted Hand, CPBE,
8-VSB, AMD
Chief Engineer
WSOC-TV, WAXN-TV
Charlotte, NC



Treasurer
Andrea B. Cummis,
CBT, CTO
Technology and
Operations Consultant
Roseland, NJ

# Director Candidates



Tim Anderson, CSRE, DRB, CBNT Manager, Radio Market & Product Developement Harris Corporation Covington, KY



Ralph Beaver, CBT President, CEO Media Alert, LLC Tampa, FL



Paul J. Burnham, CSTE, CBT Field Support Manager, Communications e2v Inc. Poughkeepsie, NY



Dale Gehman, CPBE, CBNT Gehman Compliance and Consulting Akron, PA



Ched Keiler, CPBE, 8-VSB, CBNT Director of Engineering Reach Communications Ft. Lauderdale, FL



Gary Kline, CBT, CBNT Vice President of Engineering & IT Cumulus Media Atlanta, GA



Gary Liebisch, CPBE
Regional Sales Manager
– Eastern, U.S.
Nautel, Inc.
Milford, OH



Scott Mason, CPBE CBS Radio Los Angeles, CA



Marcelo Sanchez, CPBE
Director Broadcast
Operations and
Engineering
WFOR-TV/WBFS-TV
Miami, FL



Jeff Smith, CSRE, CBNT Supervisor of Studio Systems Clear Channel Radio – New York New York, NY



Conrad Trautmann,
CPBE
Executive Vice President
of Technology
Dial Global
South Setauket, NY

#### **CERTPREVIEW** from page 1

and will have the ability to revisit the questions within the sample exam after the scoring process. A breakdown of the topical categories is within the exam, which helps you identify your strengths and weaknesses so you can study accordingly.

The new software allows SBE the opportunity to update questions and content on a real time basis, providing you the most up-to-date information you need for the exams.

The SBE CertPreview prepares users for the following exams:

- Certified Broadcast Technologist®
   (CBT) Radio
- Certified Broadcast Technologist® (CBT) - TV
- Certified Broadcast Networking Technologist® (CBNT®)
- Certified Audio Engineer® (CEA®)
- Certified Video Engineer® (CEV®)
- Certified Broadcast Radio Engineer (CBRE®)
- Certified Broadcast Television Engineer (CBTE®)
- Certified Senior Radio Engineer (CSRE®)
- Certified Senior Television Engineer (CSTE®)
- AM Directional Specialist<sup>TM</sup> (AMD<sup>TM</sup>)
- 8-VSB Specialist (8-VSB) TM
- Digital Radio Broadcast Specialist<sup>TM</sup> (DRB<sup>TM</sup>) coming soon!

For more information about the SBE CertPreview or to purchase the software, visit the SBE website at www.sbe.org/Cert-Preview.php

# **ENNES**

E D U C A T I O N A L FOUNDATION TRUST The Ennes Educational Foundation Trust would like to thank the following supporters for their scholarship fund contributions:

Harold Ennes Scholarship Fund

Stephen Smith Ir., Loudon, Tenn.

Stephen Smith Jr., Loudon, Tenn. Mark Richer, McLean Va.

The Ennes Educational Foundation Trust offers scholarships, 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.

**AUGUST 2010** 

# What people are saying about SBE University

ince releasing the SBE University course on Computer Networking for Broadcast Engineers in May, 55 people have signed up for the course. That's a record! No other course to date has elicited such interest. The demand is high and the feedback received thus far on the quality of the course and of SBE University as a whole, has been outstanding.

The SBE is grateful to Paul Claxton, CPBE, CBNT, for bringing this idea forward and developing the Computer Networking course for SBE. Claxton says, "The future of this industry is inevitably in information technology. This course serves as a stepping stone to help those who need to understand the fundamentals. As a broadcast engineer who has spent the last 15 years in IT and has experience in teaching, I felt compelled to give back to the Society that helped me. It is my hope that this course will help broadcast engineers take that step toward incorporating technology in their skill set."

Those responding to an evaluation of their experience of SBE University and the course itself thought registration was easy, the format and ease of use of SBE University was great, and that overall SBE University is a great tool for learning. One student noted, "It was no problem logging on and starting right from where I left off each time." Another person said, "Great experience, please develop more!"

Todd Creamer, a member of SBE since 2007, took the 8-VSB course. Creamer said of the course, "As a former writer of interactive training I found the course to be well presented and engaging. I hope to be able to take other courses in the near future."

SBE University is made up of online self-study courses where you pick the date, time and location to learn. The member cost for these courses varies from \$59 to \$99. Upon registration, students immediately gain access to the course.

Each course in SBE University looks like an electronic book in that it is broken out into chapters. There are normally 8-14 chapters that make up the 'meat' of the course. At the end of most chapters are quizzes, as well as a final exam at the end, all to help you confirm your knowledge of the material.

Current courses available on SBE University include:

- Computer Networking for Broadcast Engineers
- **AM Antenna Systems**

Webinars

**Webinars** 

by SBE

Maximizing HD & 1080p/60 Cable Performance Instructed by Steve Lampen, CBRE **Human Factors in Broadcasting** 

Instructed by Jim McTigue Leadership Development Series

Instructed by Rodney Vandeveer

**RF Safety Course** 

On-Demand Event Frequency Coordination Instructed by Richard Strickland

Instructed by Ralph Beaver, CBT For more information on Webinars by SBE, visit www.sbe.org/WebinarsbySBE.php.

- Voice Telco Networks and Studio Interface Systems
- 8-VSB
- **AM Antenna Computer Modeling**
- **FM Transmission Systems**
- Matching Networks and Phasing

SBE University is just one more way for the broadcast engineering professional to get the education needed to succeed. It is not meant to take the place of traditional in-person learning, like the Ennes Workshops, local SBE meetings and other live, in-person learning opportunities. However, SBE understands how difficult it can be to get away. By offering this library of self-study courses, SBE gives members additional avenues to acquire knowledge. That's what it's all about.

For more information on SBE University, visit the SBE website at www.sbe.org/SBEUniversity.php.

# MARK YOUR CALENDAR

#### **Upcoming Ennes Workshops**

Topics addressed at this year's workshops include:

HD Radio™ Power Increase, Broadcast Imaging Technology, ATSC Mobile DTV, Broadcast Tower Failures, Providing Media-Rich Content Using Digital Radio and more. Topics may vary from workshop to workshop. For more information on the Ennes Workshops, visit SBE's website at www.sbe.org/ennes workshops.php.

#### **August 20 - Nashville Ennes Workshop**

Hosted by SBE Chapter 103 and the Tennessee Association of Broadcasters In conjunction with the TAB Summer Convention

**When:** 9:00 a.m.-5:00 p.m.

Where: Embassy Suites Murfreesboro,

Murfreesboro, TN

SBE or TAB Members - \$25 Cost:

Non-Members - \$35

www.sbe.org/ennes\_workshops.php#Nashville

#### September 25 - Dallas, Texas Ennes Workshop

Hosted by SBE Chapter 67 - North Texas

Where: University of Texas – Arlington, Nedderman Hall, Distance Learning Center, 701 South Nedderman Drive, Arlington, TX 76019

Cost: SBE Members-\$25/Non-Members-\$45/Students-\$10

#### October 16 - San Diego, California Ennes Workshop

Hosted by SBE Chapter 36

Where: Doubletree Hotel San Diego Downtown, 1646 Front Street, San Diego, California 92101

Cost: SBE Members-\$35/Non-Members-\$45/Students-\$25

#### November 10 - New England Ennes Workshop

Hosted by SBE Chapter 11, In conjunction with the New England Broadcast & Cable Expo

When: 9:00 a.m.-5:00 p.m.

Where: DCU Center, Worcester, MA

Cost: SBE Members - \$25 / Non-Members - \$35

www.sbe.org/ennes workshops.php#Boston

#### **Other Upcoming Events:**

October 20-22 - 60th Annual IEEE Broadcast Symposium

Where: Westin Hotel in Alexandria, VA

Registration: www.ieee.org/organizations/society/bt/

the SIGNAL 10

# **2010 SBE Membership Drive Winners**

he 2010 SBE Membership Drive has come to a successful close. The SBE Membership Committee would like to thank the members who participated in the drive by recruiting new members. All participants are winners, earning \$5 off their 2011 membership renewal for each new member they recruited (up to \$25).

The following is a complete list of winners drawn June 12 at the SBE Executive Committee Meeting held in Indianapolis, Ind.

#### **Grand Prize Winner:**

John Ramsey – Ch. 14, Connecticut Valley

- Trip to the SBE National Meeting in Madison, Wis. October 26-27, Courtesy of the SBE.
- HDTV, courtesy of the SBE.

#### **First Prize Winner:**

Mark Heller, CBRE, CTO – Ch. 80, Fox Valley, Wis.

Panasonic Lumix Digital Camera, courtesy of Panasonic.

#### **Second Prize Winner:**

**Larry Bloomfield – Ch. 76, Eugene, Ore.** Paladin Tools PT-540, courtesy of Broadcast Supply Worldwide.

#### **Other Prize Winners:**

Mark Heller, CBRE, CTO – Ch. 80, Fox Valley, Wis.

Web camera courtesy of Broadcast Microwave Services.

**Larry Bloomfield – Ch. 76, Eugene, Ore.** *Directional Antennas Made Simple* by Jack Layton, courtesy of Layton Technical Services.

**Basil Mouzakis – Ch. 20, Pittsburgh, Pa.** *Networking: A Beginners Guide*, Fifth edition courtesy of McGraw-Hill.

William Magliocco, CPBE, 8 -VSB, CBNT – Ch. 5, Atlanta, Ga.

Logo Polo courtesy of Broadcast Electronics.

- Mark Albert, CPBE Ch. 26, Chicago, Ill.
- William Brown Ch. 39, Tampa Bay Area, Fla.
- Mark Harris Ch. 67, North Texas
- Mark Hill, CSRE Ch. 49, Central Illinois
- Noel Richardson, CSRE Ch. 116, Mountain State, W. Va.
- Bruce Ziemienski CPBE, DRB, CBNT
   Ch. 131, Inland Empire, Calif.

SoftMetal Server logo shirts courtesy of Ross Video.

- Mark Heller, CBRE, CTO Ch. 80, Fox Valley, Wis.
- Steven Schmitt Ch. 49, Central Illinois

Logo Fleece Pullover courtesy of Kathrein Scala.

- Larry Bloomfield Ch. 76, Eugene, Ore.
- Charles George, CSTE Ch. 21, Spokane, Wash.

Logo Polo courtesy of Continental Electronics.

Mark Heller, CBRE, CTO – Ch. 80, Fox Valley, Wis.

Flash drive lanyard courtesy of Broadcast Electronics.

- John Collinson, CPBE, 8-VSB, AMD,
   CBNT Ch. 39, Tampa Bay Area, Fla.
- Chris Gunnufsen Ch. 54, Tidewater, Va.
- Chris Homer, CTO Ch. 47, Los Angeles, Calif.

Gerber Multi-tool courtesy of Harris.

- David Boltz Ch. 47, Los Angeles, Calif.
- Steven Jaquin Ch. 132, Fort Meade, Md.
- James Ocon Ch. 74, Midland, Neb. Logo shirt courtesy of SCMS.

Terry Reynolds, CPBE – Ch. 89, Alaska Harris coaster set courtesy of SCMS.

George Maier, CPBE – Ch. 11, Boston, Mass.

AKG Acoustics microphone courtesy of SCMS.

- Dewey Newton Ch. 5, Atlanta, Ga.
- Arthur Smith, CPBE, CBNT Ch. 79, Austin, Texas

Pocket Protector courtesy of SCMS.

- Francis Hertel Ch. 121, Tri-State, Ill./Ind./Ky.
- Robert Reymont, CPBE Ch. 9, Phoenix, Ariz.

DTS logo shirt courtesy of DTS.

Michael Maville, CBT, CBNT – Ch. 88, West Palm Beach, Fla.

DTS Hat courtesy of DTS.

- John Collinson, CPBE, 8-VSB, AMD, CBNT Ch. 39, Tampa Bay Area, Fla.
- Adolph Garza, CBT Ch. 67, North Texas
- Mark Heller, CBRE, CTO Ch. 80, Fox Valley, Wis.
- Richard Mall, CBTE Ch. 38, El Paso, Texas
- David Priester, CPBE Ch. 140, Ithaca, N.Y.
- Shane Tove, CBRE, CBNT Ch. 129, Wyoming

Compact Black LED flashlight courtesy of Harris.



AUGUST 2010 11

# Rapid growth of the SBE education program – are you taking advantage of it?

by John Poray, CAE

SBE Executive Director

t's been two years since SBE began a significant and intentional expansion of its nationally offered educational opportunities for members, and just over one vear since the Board authorized funding to add the new position of education director to the national office staff. The SBE Board of Directors made the important decision to commit financial resources to expand and build a quality, comprehensive education program. Since April of 2008, we have seen an impressive increase in the number of educational courses and seminars that SBE offers on a national basis. Recognizing our member's limited time and financial resources, a major thrust of the education expansion was to create on-line learning opportunities that meet their needs.

Our Education Committee, chaired by David Priester, CPBE, has done an outstanding job, working with education director, Kimberly Kissel, to develop a growing catalogue of educational programs for members and non-members alike. There are now seven courses available within the 19 month-old SBE University of on-line, on-demand courses, the latest covering computer networking, written by Paul Claxton, CPBE, CBNT of Chapter 131, Inland Empire of California. More than 50 people have already taken, or are taking the course now, with many good reviews. More University courses are in the works, including one on ENG truck operation, which has been requested by many people.

SBE's education program includes three other major areas of effort, all of which have experienced growth in the last year. The Ennes Workshops, presented by SBE, will number seven this year, the most ever. These one-day programs bring multiple speakers to local areas who speak on varied broadcast technical topics. They are affordable in both time and cost. Speakers are experts in their fields and come from

across the country. So far this year, Ennes Workshops have been hosted by chapters in South Florida, Las Vegas and El Paso with programs in Nashville, Dallas, San Diego and Boston yet to come. If your chapter is interested in bringing an Ennes Workshop to your city in 2011, contact Kimberly and she'll explain what's involved.

Webinars by SBE are live programs via the Web that feature experts on a variety of broadcast technical, regulatory and management topics. Typically lasting from one to three hours, these are convenient and economical programs that serve to keep you up with technical advancements, operational procedures and management techniques. Six webinars have been held so far this year with more scheduled, including the next SBE RF Safety Course by Richard Strickland on September 16 at 6:00 pm EDT/3:00 pm PDT. Other webinar topics this year have included: Maximizing HD and 1080p/60 Cable Performance, event frequency coordination, RF safety and leadership, communication and motivation as management skills All of the SBE live webinars held so far this year are still available, as recorded versions on-line, at the SBE website, www.sbe.org.

The fourth area of SBE education consists of our Leadership Development (formerly known as Leader-Skills) seminar. SBE began offering this in 1997, picking up a program begun in the mid-1960's by the NAB. This year, our Leadership Development Course has been stream-lined to one, three-day program (down from two-threeday sessions) and is being held in Atlanta, August 3-5. As of this writing, 25 people have registered for the course, making it the best attended SBE Leadership Development seminar SBE has offered. The course is being taught by Rodney Vandeveer, Professor of Organizational Leadership and Supervision at Purdue University, who has taken over for us after the retirement of Dick Cupka. Rodney has an impressive background of industry and teaching experience and comes highly recommended by Dick. We know he is going to carry on the legacy



of quality, real-world instruction that Dick

was so noted for.

To summarize, in just two years, SBE has created 14 new and unique education programs and expanded our legacy education programs at the same time. I'm pleased to say that so far during 2010, almost 500 members have taken advantage of these programs. Have you? I encourage you to visit the SBE website education pages, read about the many programs now available and see if there isn't something for you. And if you have ideas of programs you'd like to see, let us know. Every program SBE has created has come from member suggestions.

Your opportunity to vote ... We just mailed ballots for the election of national officers and directors to all voting members this past week. Watch for yours in the mail. When you get it, please read the information about the candidates, mark your ballot and return it by mail to the national office. Our current fine group of officers is running unopposed and we have eleven candidates running for six director seats. Your vote is an opportunity to express a commitment to your Society and your profession by showing support for those who will represent you on the governing body of the Society. Ballots are due back to the national office by August 26 and will be counted that night by members of Chapter 25, here in Indianapolis.

One more item ... we're working on an overhaul of the SBE website this summer. Watch for a new, more streamlined website, compatible with mobile applications and with a new chapter and national calendar feature, this fall.

# Chapter 66 - Fresno, Calif. www.sbe66.0rg

SBE Chapter 66, Fresno, Calif. is a strong and active chapter that has continuously provided consistently strong educational programs and newsletters. Chapter Secretary and Treasurer Steve Dresser describes his chapter's successful formula:

"Chapter 66 of the Central San Joaquin Valley has always been active with the Valley Engineers from radio, television, cable and county & city radio services. We have a monthly luncheon meeting, usually with a representative from a broadcast equipment manufacturer showing their goods. In September we have our annual 'Picnic at Meadow Lakes' for engineers and their families and friends. Tours of TV & FM Radio transmitter sites are given after the picnic. Chapter 66 has always promoted SBE Certification of local engineers from Bakersfield to Merced. Mike Feist, CPBE, CBNT from California State University Fresno, is our Chapter 66 Certification Chairman. We have always felt strongly about producing the Monthly Chapter 66 Newsletter, both the paper & on-line version, to keep everybody informed of Chapter 66 meetings and other happenings locally and nationally. Newsletter business card advertising supports the production of the newsletter and our other activities. We believe having a strong chapter chairman & bringing in equipment manufacturers to show off the latest equipment and answer questions about their products is very important to a successful local SBE chapter. We also try to arrange one or two field trips each year to manufacturers, transmitter sites, studios or cable system operations. We try to have programs throughout the year of interest to all the Central Valley - Steve Dresser, KMPH TV FOX 26, KFRE TV CW 59 Engineers."



SBE Chapter 66 Chairman Ken Holden (holding meat tray) and Vice Chairman Pat Fennacy (holding microwave dish) at the annual Meadow Lakes SBE66 Picnic and transmitter tour. Just in case the grill doesn't light, they can always microwave.

- Photo and caption by Dennis Thompson

# a snapshot of an SBE Member

**Johnny Stigler, CPBE** ENG Supervisor, WFAA-TV, Dallas, Texas. Joined SBE in 1986, Chapter 67, North Texas. When I'm not working ... When I am not on the job and not on a cruise with the wife, I am building projects for our Ham group. We have about 50 repeaters around the state to maintain. The first system design started in my garage with three of us. Later we formed a club and have made many new friends over the years. I enjoy going to meetings around our state and also going to California for their meetings.

**Job Satisfaction:** My current job in Television for the last 30+ years is something that I have always enjoyed. It is almost like a

**People think it's interesting that ...** When I tell people about going to work on the tower top or jumping in the helicopter for a ride they just can't visualize someone doing this. For me it is just part of a normal day, keeping our station running. I needed a window air conditioner replaced at 1500' on the tower top in our building one day. I took my son along for the manual labor. He still talks about this today. Retirement is getting closer, but if it is like my other ham buddies, the work will pick up after retirement keeping the hobby running.



13 **AUGUST 2010** 

#### 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**

Mark Siegel (206) 870-0244 **Systems Integrator** 

#### **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/Rauer Inc. • 2004 Paul Dudeck (203) 929-1100 **Battery Solutions for ENG**

#### **Audemat-Worldcast Systems Inc.** - 2000

Christophe Poulain (305) 249-3110 Audio Signal Processing

#### Audionamix • 2009

Olivier Attia (800) 787-4134 RDS Generator, Metering, Monitoring, **Remote Control Manufacturer** 

#### AVCOM of Virginia, Inc. • 2010 Warren "Buck" McElfresh (804) 794-2500 Spectrum Analyzers

#### **AXCERA - 1983**

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

#### **Belden Electronic Division • 1991** Kip Coates (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 and Audio Consoles** 

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

## dcast Engineering Magazine

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

#### **Broadcast Microwave Services,** Inc. • 1997

Tim Noonan (319) 277-4767 - EAST Jim Kubit (805) 581-4566 - WEST 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 Larry Thorpe (201) 807-3300, (800) 321-4388 **Broadcast Lenses & Transmission** Equipment

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

#### **Communications Labratories** - 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** Corporation • 1976 Michael Troje (800) 733-5011 AM & FM IBOC Transmitters

Crouse-Kimzey Co. • 2008 Lee Edwards (972) 660-6100 **Broadcast Equipment Sales** 

#### Dataworld - 1998 Ed Czarnecki (800) 368-5754 Coverage Maps and Services

#### Deiero 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 John George (207) 655-4555 or Matt Leland (803) 951-7443 TV & FM Broadcast Products

Digital Alert Systems, LLC • 2005 Bill Robertson (585) 765-1155 **Emergency Alert Systems** 

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

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

#### DSI RF Systems, Inc. • 2010 Judy Mueller (732) 563-1144 RF Service/Installations/Products

# Mark Seigle (425) 814–3200

#### Surround Sound Technologies du Treil, Lundin & Rackley, Inc.

# leff Reynolds (941) 329-6000

# **Consulting Engineers**

#### Vijay Patel (914) 592-6050 Klystrons, MSDC IOTs, IOTs, Satcom Amps, TWTs

#### nco • 1980 Debbie Storz (800) 532-6626 or (530) 662-7553 ew & Rebuilt Transmitting Tubes

#### Elettronika America Inc. • 2010 Maria Quintero (305) 592-4506 Television Transmitter & Exciters

Empower RF Systems • 2008 Jeff Eade (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 FM & TV Antennas, Transmission Line, Filters, Combiners and Towers

#### Fiber Instrument Sales, Inc • 2009 Cassidy Marsha (315) 736-2206

Florical Systems • 2008 Jim Berry(352) 372-8326 Television Broadcast Automation

# Frontline Communications Corp.

Doug McKay (727) 573-0400, ext. 120 Broadcast/Command/HLS Vehicles

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

Gepco International • 1995 Dave Chapa (847) 795-9555 Audio, Video Cable Products

#### **Grass Valley • 2000** Andy Jackson (404) 929-5000 TV/Film Production & Broadcast Professionals

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

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

Zach Wilkie (416) 750-8872 ext. 228 Dave Russel (416) 750-8872 ext. 228 Under Monitor Tally Display Systems, Monitor Walls, Signal Alarm Systems

#### IneoQuest • 2009

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

#### **Integrated Microwave** Technologies, LLC • 2009 Digital and Analog Video Microwave

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

#### JDSU - 2007 (919)338-5061

Systems

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

## Cathrein Inc., Scala Division •

Michael W. Bach (541) 779-6500 Antennas for Broadcasting & Communications

#### Kintronic Labs, Inc. • 2010 Eric Miramontes (423) 878-3141 AM HD Antenna Systems

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

#### L-3 Communications Electron Devices • 2003 Steve Bliek (570) 326-3561, ext. 229 Tubes, Power

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

#### Lincoln Financial Media • 2007 Barry Thomas (404) 261-2970 Media, Communications

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

Markertek Video Supply - 2002 Andrew Barth (845) 246-3036 Audio, Video, A/V Broadcast Supply

#### **Maxell Corporation of America** - 1991

Patricia Byrne (201) 794-5900 Data/Broadcast Video Media

#### MAYAH Communications • 2010 Daniel Loeffler (360) 618-1474 Audio CODECS: Mobile/ 1/21 RUrack

#### 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 Amoscato (973) 839-1011 x1192 Enclosures, Power, Accessories,

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

**Furniture** 

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

#### ley Associates, Inc. • 1977 Dave Chancey (805) 968-9621 RF & T1 STLs

#### lational Association of Broadcasters • 1981 (202) 429-5340 **Industry Trade Association**

#### National Football League • 1999 Jav Gerber **Game Day Coordination Operations**

Nautel. Inc. • 2002 Gary Manteuffel (877) 662-8835 Radio Broadcast Transmitter

#### **NSOEM - 2010** Robert Sorbet (281) 500-8940 **Power Quality**

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 Mitch Cohen (646) 424-3817 **FCC Rules & Regulation**

#### Polyphaser/Transector Systems · 2005

Carol Rassier (208) 762-6121 Power Quality Products & Services

#### Preferred Tank & Tower, Inc • 2010

Vie Maiors (270) 826-7950 ext 227 Communication Tower Maintenance/ repair

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

#### **Propagation Systems Inc. - PSI** · 2010

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

#### Pulsecom • 2003 Dave Corp (703) 471-2908

AM, FM and HD STLs, Copper and Optical

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

#### **Radian Communication Services**

Inc. • 1986 John McKay (866) 4-RADIAN Towers, Antennas, TV Transmitter Installation

#### RCS - 2003 Diana Stokey (308) 284-3007 Audio and Video Content Management

#### RDL - 2004 Chuck Smith (928) 778-9678, ext. 142 TV Test, Measurement Equipment Audio, Video, Control & Test Equipment Manufacturer

#### RF Specialties Group • 2008 www.rfspecialties.com Trasmitters, Antennas and More

Richland Towers • 2001 David Denton (813) 286-4140, ext.

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

Tower Owner/Management

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

#### Ross Video Ltd. • 2000 Kyle Luther (613) 652-4886 Manufacturer, Television Broadcast Equipment

# Sage Alerting Systems, Inc. • 2010

Gerald LeBow (914) 872-4069 **Emergency Alert Systems Products** 

#### Salzbrenner Stagetec Media Group • 2009 Vinnie Marci (888) 782-4391

Professional Audio Solutions SCMS, Inc. • 2000 Bob Cauthen (800) 438-6040

#### **Broadcast Equipment- New/Used** Screen Service America - 2010 Graziano Casale (212) 695-8341 Broadcast Transmitter & ATSC Mobile

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

#### Sencore, Inc. • 2005 Garrett Carter (800) 736-2673 **MPEG Operation and Test Equipment**

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

#### Sigmet • 2008 Ed Portko (610) 783-6666 **Broadcast Equipment Support Sales**

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

#### Staco Energy Products Co. • 2010 Paul Heiligenberg (937) 253-1191 ext 128 Manufacturer Voltage Regulators, UPS

Stainless LLC/Doty-Moore • 2004 Ed Deetscreek (215) 631-1323 Towers - Engineering - Services - mods

#### Superior Electric • 1995 Michael J. Miga (860) 507-2052 Power Protection Equipment

Sutro Tower, Inc. • 1989 Eric Dausman (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**Richard Duvall (503) 627-3203

#### 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 Broadcast Auxiliary Licensing Services

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

TV/FM/Microwave Tower Site

The Durst Organization – 4 Times Square • 2004 John M. Lyons, CPBE (212) 997-5508

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

**Tieline Technology • 2003** Mary Ann Seidler (317) 845–8000 POTS, ISDN, Codecs & A/V Products

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

**TV Magic • 2008** Gus Allmann (858) 650-3155 **Broadcast Systems Integrator** 

#### Unimar, Inc. • 2001 Thad Fink (813) 643-6791 or (813) 943-4322 Tower Obstruction Lighting Designer,

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

Manufacturer, Distributor

V-Soft Communications • 2002 Lisa Erickson (319) 266-8402 **Broadcast Engineering Software &** Consulting

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

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

#### Westwood One • 2006 Dee Perkins (315) 472-1560 Radio and TV Programming

#### **Wireless Infrastructure Services** · 2006 Travis Donahue (951) 371-4900

**Broadcast System Integration Services** 

the SIGNAL

# SBE would like to welcome its newest members:

#### **New Members**

Robert Blazewicz - Oro Valley, AZ

Edward E. Hedge - Zanesville, OH Donald A. Williams - Louisville, KY Charles P. Sotto - Cincinnati, OH Eric A. Clause - Las Vegas, NV B. Lamont Dorrity - Heber City, UT Yi V. Chung - Holland, MI Gary L. Griffin, Jr. - Dothan, AL Russell Guenthner - Louisville, KY Michael W. Hill - Roseburg, OR Rvan Kinnamon - Haslett, MI Russell T. Meadors - Normal, IL Michael J. Steele - Appleton, WI Scott Stokes - Albuquerque, NM Anthony Versley - Winchester, VA Thomas H. Ford - Callahan, FL Denver J. Plett - Green Bay, WI Steve DuChene - Tampa, FL Anthony P. Fantozzi - Columbus, OH Dennis D. Gardner - Las Vegas, NV Aekta Joshi - Mississauga, Ontario, Canada Roel H. Saenz - Laredo, TX Ionathan R. Greco - Lansdale, PA Robert P. Whalen - Peoria, IL Daniel N. Whealy - Davis, IL Rodney L. Freed - Martin, TN Joseph P. Husnay - Chesapeake, VA Daniel J. Hodd - Brooklyn, NY Rich M. Martinez - Astoria, NY Elliott M. Norton, III - Sugar Land, TX Patrick L. Person - Bothell, WA Leonard M. Wallace - Boone, IA David W. Reams - Surfside Beach, SC Ton King Kai - Lam Tin, Kowloon, Hong Wesley W. Brofford - Lancaster, OH Kong Andrew H. Rode - Mississauga, Ontario, Canada

#### **Reinstated Members**

Bill Waller - Longview, TX

Gustavo Ruibal - Knoxville, TN David R. Festa - Bristol, CT

Michael A. Boswell - Mt. Juliet, TN Fred Findling - Chevenne, WY

Charles D. Leyrer - Las Vegas, NV Andrew Tejral - Montclair, NJ Clarence D. Fletcher - Hyattsville, MD Melvyn R. Newcombe - Shalimar, FL David R. Riffle - Rohnert Park, CA Gordon D. Whisner - Vancouver, WA Steven B. Brant - Jacksonville, FL

Kevin Clayborn - Glendale, AZ Paul Deeth - Golden, CO Michael G. Young - Charlotte, NC Charles W. Singleton - Amarillo, TX Cristiano Nuernberg - Cambridge, MA George M. Burt - Aurora, CO Patrick G. Lee - Greer, SC Eric B. Lane - West Hills, CA Christopher Connolly - Denver, CO Eric S. Smith - Arvada, CO Michael D. Ketchersid - Yukon, OK Robert M. Henry - Albuquerque, NM

**New Student Members** Mitch W. Bunda - Calgary, Alberta, Canada Cory J. Chibry - Okotoks, Alberta, Canada Alexander W. Grant - Mission, British Columbia, Canada Awad S. Hassan - Clagary, Alberta, Shawn R. Johnsen - Calgary, Alberta, Canada Michael D. McGovern - Calgary, Alberta, Canada Tom Morris - Miami, FL Artem A. Naumov - Calgary, Alberta, Canada Robert Rubenok - Calgary, Alberta, Canada Ben N. Yardley - Calgary, Alberta, Canada Joanna Farley - Whitehouse Station, NJ Aubrey D. Ralph - Madison, WI Robert Zegarelli - Montreal, Quebec, Margo K. Kelly - Silver Spring, MD

#### **Reinstated Student Members**

Jared A. Ghioto - South Yarmouth, MA

Vaughn W. Stull - Dennison, OH

Hugo E. Castellanos - Orlando, FL

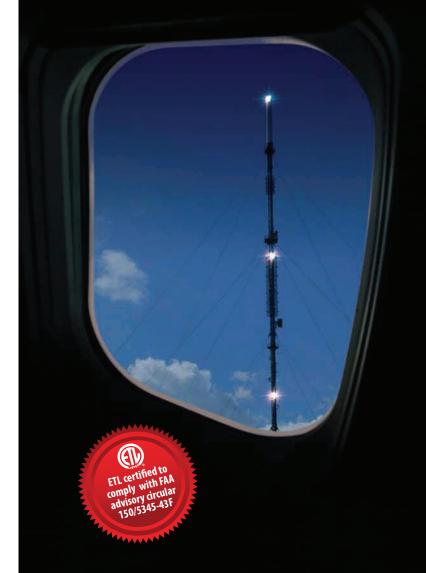
Johnny R. Finley - Tacoma, WA

Gary E. Knittel - Las Cruces, NM

#### **New Associate Members**

Brandon Bowles - Benicia, CA Wil Boyd - Mascoutah, IL

# Never alone in the dark.



- Most reliable High Intensity Lighting System on the market.
- Power supply located in shelter.
- Red option for night available within the same flashhead.



Protective lighting systems for tall structures

# Does your SDI to HDMI Converter do this?



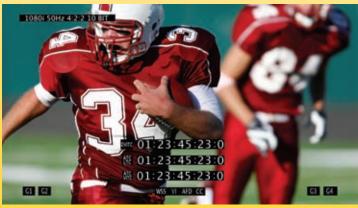


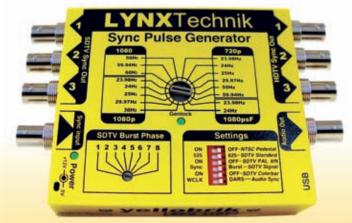
Image showing timecode and metadata overlay mode. G1-G4 indicate AES audio presence, WSS,VI, AFD and CC are present when highlighted.

- Support SDI video formats up to 3Gbit (1080p)?
- Display Timecode and indicate Metadata presence?
- Provide fiber options to receive and transmit SDI streams?
- Provide access to all 16 channels of embedded audio?
- Provide an AES output which can also pass through DolbyE?
- Provide balanced or line level stereo analog audio outputs?
- Provide video and audio presence indication?

## ours does...

Introducing the **CDH 1811 yellobrik** from LYNX Technik. Simply the most versatile **SDI to HDMI converter** "brick" available today. From viewing an SDI signal on an HDMI display, to an integrated SDI fiber transmission system with HDMI confidence monitoring on both ends.

- the possibilities are endless -



#### Simple to use, easy to operate..

All yellobriks have easy to access controls and everything printed right on the module - no manuals needed.



#### Each yellobrik includes:

- 12v Power Supply
- Mounting Brackets
- Plastic Transport Case

# Sync problems?

- ✓ Need an HDTV, SDTV and audio reference sync source?
- ✓ Need HDTV sync locked to a NTSC or PAL reference?
- √ Need to cross-lock between all video standards?
- √ Need 2ppm temperature controlled accuracy?

# we have the solution...

With a myriad of new HDTV formats and legacy NTSC and PAL formats to deal with, the **SPG 1707 yellobrik Sync Generator** solves a multitude of synchronization problems. Use as a stable standalone reference sync source, or slave to any reference signal with fully automatic format detection and cross-lock....

- the SPG 1707 yellobrik has it all -