Ralph Hogan, CPBE, DRB, CBNT is the newly elected president of the Society of Broadcast Engineers. Hogan is the associate general manager of Engineering and Technology for MCTV/KJZZ-FM/KBAQ-FM Sun Sounds of Arizona in Tempe, Ariz. His one-year term, along with the terms of other members elected to the board, begins Sept. 28 at the SBE Membership Meeting.

See Election on page 9

New SBE University courses available

The SBE Education Committee is pleased to announce two new courses on SBE University. The first new course is Television Video and Audio - a Ready Reference for Engineers. This course, written by Randy Hoffner, is an introduction to video and audio for television, from the dawn of analog television broadcasting to today's digital television transmission. It is meant to give the television engineer a solid grounding in the various aspects of video and audio for television, and to serve as a ready reference to the pertinent standards.

The course begins with NTSC, which is the basis for all of television as we know it in the United States. Next, component analog video is covered, along with a tutorial on resolution and a discussion of aspect ratios. A chapter follows on digital video and one on digital scanning formats. Other topics covered include characteristics of the video signal, baseband video interfaces and plant infrastructures - video compression and video storage from kinescope to server.

A discussion of analog audio, in addition to providing some historical perspective, introduces basic...
“We use BRIC-Links for our main STL on 107.7 FM, one of the satellite stations for WTOP, with very good results. I was pleasantly surprised at just how easy it is to set up a pair of BRIC-Links out of the box. I had my final configuration within ten minutes of powering up the units. We’re running AAC audio that sounds every bit as good as the circuits to our other transmitter sites.

We had been struggling for about a year to find a reliable audio STL to our transmitter site on top of a mountain in Warrenton, VA. The telco lines degraded every time it rained, causing dropouts in our T1 and ISDN service. This summer, when services that did not rely on the leaky copper cables were finally built out at the site, we tried a pair of BRIC-Links on our new broadband Internet service. We’ve kept our transmitter on them ever since. We’re going to be purchasing more pairs of these units to feed audio to our other sites.”

David Kolesar, Senior Broadcast Engineer
Bonneville International Corporation
WTOP / WFED, Washington, DC

We design our products to be dependable. So, you wouldn’t think we’d be surprised by how many people put our products on the line every day. But, we are. And, honestly, we’re kind of proud, too.

No matter what the market size, Comrex customers depend on BRIC-Link Stereo IP Codecs to deliver reliable, high quality audio over dedicated data links at a reasonable price. Whether you are replacing costly satellite or telco transmission links, sending program audio to multiple locations or connecting two studios, BRIC-Link will do the job with minimal setup and maximum performance. Contact Comrex today to find out what so many of our customers already know.

Engineer Payola In Every Box We Ship...

When you buy broadcast equipment from BSW, not only do you get your gear at the lowest price with the fastest delivery from the best people in the biz...you also get the REALLY important (delicious) stuff!
The Society of Broadcast Engineers will serve as co-producer with the National Association of Broadcasters for the NAB Broadcast Engineering Conference (BEC), held at the 2012 NAB Show in Las Vegas. The annual NAB Show is the largest media show in the world, with an attendance of more than 90,000 participants during last year’s event.

The BEC is April 14-19, 2012, at the Las Vegas Convention Center and is the oldest conference held as a part of the NAB Show, now in its 66th year. The upcoming show will mark the 18th consecutive year for the SBE as co-producer.

The SBE has announced the members of the BEC Advisory Committee. This group meets to help determine the session topics and select the technical papers that will be presented during the BEC. Chairing the committee this year will be SBE member, Steve Fluker, director of engineering for Cox Media Group Orlando, in Orlando, Fla. Joining Fluker on the committee are Jeff Andrew of WTTG-TV, Washington, D.C.; Brett Jenkins, ION Media Networks, New York, N.Y.; Gary Nadler, ABC TV Network, New York, N.Y.; Thomas Ray, III, CBNT, AMD, DRB, Buckley Radio, New York, N.Y.; Robert Seidel, CBS Television, New York, N.Y.; Martin Stabbert, CBNT, Civic Media Communications, Las Vegas, Nev.; Jim Stagnitto, WNYC/WQXR Radio, New York, N.Y. and Glyn J. Walden, CBS Radio, Philadelphia, Pa. Also serving as representatives of the SBE and the Ennes Educational Foundation Trust are Fred Baumgartner, CBNT, Harris Corp. – Broadcast Communications, Englewood, Colo. and John Poray, CE, Society of Broadcast Engineers, Indianapolis, Ind.

The SBE and the Ennes Educational Foundation Trust will present a full-day Enness Workshop to kick-off the BEC. The Enness Workshop as the final day of the BEC. Chairing the committee this year will be SBE member, Steve Fluker, director of engineering for Cox Media Group Orlando, in Orlando, Fla. Joining Fluker on the committee are Jeff Andrew of WTTG-TV, Washington, D.C.; Brett Jenkins, ION Media Networks, New York, N.Y.; Gary Nadler, ABC TV Network, New York, N.Y.; Thomas Ray, III, CBNT, AMD, DRB, Buckley Radio, New York, N.Y.; Robert Seidel, CBS Television, New York, N.Y.; Martin Stabbert, CBNT, Civic Media Communications, Las Vegas, Nev.; Jim Stagnitto, WNYC/WQXR Radio, New York, N.Y. and Glyn J. Walden, CBS Radio, Philadelphia, Pa. Also serving as representatives of the SBE and the Ennes Educational Foundation Trust are Fred Baumgartner, CBNT, Harris Corp. – Broadcast Communications, Englewood, Colo. and John Poray, CE, Society of Broadcast Engineers, Indianapolis, Ind.

The SBE and the Ennes Educational Foundation Trust will present a full-day Enness Workshop to kick-off the BEC on Saturday, April 14. Enness Trustee and long-time SBE member, Fred Baumgartner is organizing the workshop. A complete description of the topics and speakers for the Enness Workshop will be announced in November.

The six-day BEC will continue through Thursday, April 19 with dozens of technical presentations, case studies and panels for television and radio engineers. The deadline for those interested in presenting a paper at the BEC is October 21. Visit the NAB website at www.nab.org for details.

Attendees of the technical conferences of the Public Broadcasting Service and the Public Radio Engineers Association, which precede the NAB Show in Las Vegas, have the opportunity to attend the Ennes Workshop as the final day of their respective conferences. Attendance at the Ennes Workshop during the BEC requires a full NAB conference registration. Hotel, show registration and fee information will be available at www.nab.org.
Greetings everyone! This is my first opportunity to communicate with many of you as the new president of the Society of Broadcast Engineers. The society has made a good deal of advancement over the past two years under the leadership of Vinny Lopez and I pledge to continue the work that is in progress. I also look forward to working with the most excellent SBE staff at the home office that complete the daily tasks, which make the society function smoothly.

I would like to welcome the other new SBE officers, Vice President Joe Snelson, CPBE, 8-VSB; Secretary James Leifer, CPBE; and Treasurer Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT. I would also like to welcome the new board members serving two-year terms on the board of directors, Raymond Benedict, CPBE; Paul J. Burnham, CPBE; Mark Heller, CPBE; Charles "Ched" Keiler, CPBE, 8VSB, CBNT; David Priester, CPBE; and Gary Stigall, CPBE.

As a society the SBE provides a forum for the exchange of ideas and the sharing of information to help you keep pace with our rapidly changing industry. The SBE amplifies the voices of broadcast engineers by validating your skills with professional certification, by offering educational opportunities to maintain and expand those skills and by speaking out on technical regulatory issues that affect how you work. We will continue to work in support of member benefits by holding a strategic planning session in the summer of 2012. We will also make it easier for members to vote for their representatives by having electronic voting available in 2012.

The strategic planning session will have a facilitator to direct the discussion of this one-day meeting. This is an opportunity for the membership to provide tactical direction for the upcoming years of the society. The planning session is still in the development stage but I hope society chapter chairs and representatives attend this important happening. It will be held on a weekend to allow as many members to attend as possible. This event will give you an opportunity to have a voice in the direction of the society.

A resource that was updated while Vinny was in office was the new SBE website. Did you know there is a portion of the SBE website (http://www.sbe.org/sections/chapter_admin.php) devoted to chapter administration? Visit to obtain helpful information.

The Program Ideas for SBE Chapters section gives program chairmen ideas for chapter meetings. A list provides 71 ideas for chapter programs.

The Chapter Administration Forms section provides various forms available in MS Word and/or PDFs for chapter use. Some of the available forms are the Chapter Operations Manual, Chapter Attendance form, Chapter Meeting Report form, Chapter Election Summary form and the all important SBE Membership Application.

The Board/Chapter Liaisons section lists the name and contact information for your board/chapter liaison when you have questions or need help with your chapter.

The Chapter Finances section includes helpful information on chapter rebates and how to setup a chapter bank account including, how to obtain an Employer Identification Number (EIN).

The Chapter Calendar section provides each chapter with a calendar on the SBE national website. The calendar is intended to help prospective
Band Threats: It’s not paranoia if they really are after you

by Chris Imlay, CBT
SBE General Counsel

A couple of things have happened lately that make me wonder when the pain is going to stop. These pertain to the 2, 7, and 13 GHz BAS bands. It seems that all of our bands are on the chopping block at the same time.

Regular readers of this column have heard about SBE’s work with the Department of Defense to coordinate the operation of twelve DoD satellite uplink facilities in the 2025-2110 MHz band. We have met with DoD many times in many places to do this, and we carefully planned and coordinated the necessary spectrum sharing in the markets where these facilities are going to go in the future. Each side respected the other. It is a model for the right way to share spectrum. We had to do this because the FCC, under very limited circumstances, allowed DoD satellite uplinks to be placed in the 2 GHz band. But it worked well.

By stark contrast to this, Comsearch in August sent prior coordination notices (PCNs) to BAS licensees in Las Vegas and in Florida, and then to nationwide LTTS licensees on behalf of a company called Universal Space Network, Inc. The PCNs are for the purpose of coordinating private sector satellite uplink facilities in the 2 GHz band. SBE notified Comsearch - as have certain licensees receiving these notices - that Universal Space Network, Inc. is not eligible for regular licensing in the 2 GHz band. How, if DoD had to get a very specific order from the FCC for their satellite uplinks, could some private sector company plop down in the middle of the 2 GHz band without any coordination effort whatsoever?

The FCC Table of Frequency Allocations, Section 2.106 of the FCC’s Rules, shows that there is no non-government allocation that would entitle a non-government entity to obtain an FCC license for satellite uplinks in the 2025-2110 MHz band. This is true whether or not the applicant is a government contractor. Only government entities, broadcasters, cablecasters and video producers are entitled to operate in the 2 GHz BAS band, and the government agencies cannot constrain BAS uses. There are international and U.S. Footnotes to this portion of the table of allocations, but the FCC Rule parts listed for the band (i.e., the services administered in the band by FCC) are Part 74F, Part 78 and Part 101. There is no non-government allocation for satellite uplinks.

U.S. Footnote 346 notes that Federal use of the band shall not constrain the Broadcast Auxiliary Service at 2025-2110 MHz, except that the 12 DoD satellite uplink facilities at 12 specific locations are co-equal, on a primary basis with non-Federal operations. U.S. Footnote 347 states that at 2025-2110 MHz, non-Federal, Earth-to-space and space-to-space transmissions may be authorized in the space research and Earth Exploration Satellite Service “subject to such conditions as may be applied on a case-by-case basis.” Such transmissions “shall not cause harmful interference to Federal and non-Federal stations operating in accordance with the Table of Frequency Allocations.” So, Footnote 347 is supposed to be the loophole that allows non-government earth stations to operate in the 2 GHz band.

While a non-Federal satellite uplink could be authorized “on a case-by-case basis,” in the 2 GHz band, and in a very few cases, some have been authorized, these facilities have no priority relative to, and would have to protect, all BAS operations, including all mobile facilities, at all times, no matter where located. The “case by case basis” would obviously be akin to a waiver process because these facilities are not authorized by the Table of Allocations at all. It is not possible to protect itinerant mobile or temporary fixed BAS 2 GHz facilities, including nationwide BAS and LTTS licensees, at any location controlled by the FCC, and certainly not in or anywhere near any television market where news breaks anytime and anywhere. Thus, it is not good enough for Comsearch or any commercial coordinator on behalf of a non-government entity proposing a satellite uplink anywhere in the 2 GHz band, to just send out a PCN without any engineering demonstrating protection of mobile, temporary fixed or itinerant facilities. These private sector entities need to take a lesson from DoD. Beware, 2 GHz licensees: if you receive a PCN notice proposing a satellite uplink anywhere near your market in the 2 GHz band, please let SBE know pronto. You would be well-advised also to contact your station’s communications counsel and inform him or her about the issue and the notification in order to protect your ENG operations.

As to the 7 and 13 GHz allocations, the FCC finally resolved Docket 10-153 early in August by permitting fixed service (FS) operators to occupy the 6875-7125 MHz and 12700-13100 MHz BAS and CARS bands in rural areas where those bands are not currently licensed to TV mobile pickup stations. This was no surprise to SBE, because in effect, FCC had decided to do it more than a year ago in the National Broadband Plan. SBE filed three written submissions and held an extensive in-person meeting with numerous FCC technical staff members last fall, explaining why the FCC’s effort was unworkable for broadcasters.

FCC claims that it has protected incumbent BAS users in the process. It has not done that. Yet, the SBE advocacy effort did have some positive effect on the outcome. In the report released August 9 FCC concluded, “The record indicates that it is not feasible to allow FS to share spectrum with mobile and temporary fixed TV pickup operations in areas where mobile and temporary fixed TV pickup operations are licensed.” It held that, while BAS fixed and mobile operations share spectrum in the same geographic areas, the sharing that exists today would not be possible if it were not guided by informal agreements among local market participants. SBE’s frequency coordination program thus was acknowledged to be critical to sharing in the BAS allocations at 7 and 13 GHz. Still, however, these fixed links will undeniably preclude any new licensing of TV Pickups outside the currently licensed areas, and there remains a potential for interference to broadcasters’ receive sites. Any Section 74.24 itinerant operation will be subject to interference to and from wireless backhaul operations. And it is rather plain that in such cases there is unlikely to be found any regulatory help from the FCC.

There is more to do in this docket, and much for broadcasters to do to prepare for what could be an onslaught of FS applications in areas outside the service areas of broadcasters in the 7 and 13 GHz range. The very first thing that TV broadcast engineers must do is to check and make sure that your TV pickup receive sites are shown on each of your licenses in the FCC’s ULS database. Do it today. Those with nationwide licenses should keep an eye on the FCC’s ULS database for new applications and licensed FS facilities in your area.

It’s not paranoia. They really are coming after us.

by Chris Imlay, CBT
SBE General Counsel

OCTOBER 2011
The (not-so-) daunting essay question

by Joe Snelson, CPBE®, 8-VSB
SBE Vice President/National Certification Committee Member

Some time back I wrote an article about certification essay questions. Several years of essay grading later I would again like to talk about the essay question, which is an important part of obtaining a senior level or specialist certification.

The SBE Program of Certification has several different levels that are tailored to varying degrees of experience. In most cases, to obtain SBE certification an individual must pass an examination to demonstrate his or her knowledge of broadcast engineering. These exams all use a multiple-choice question format.

In addition to the multiple-choice test, the exam for Certified Senior Radio or Television Engineer or a Specialist certification (e.g., AMD, DRB, 8-VSB) also includes essay questions. What follows is why the essay question is important in the senior-level and specialist certification examination process.

First, let us review the requirements for senior level certification. An applicant must first have 10 years or more of responsible broadcast engineering or related experience. Then the individual must achieve a passing grade on an examination comprised of multiple-choice questions and one essay question. For a specialist the examinee must hold a Broadcast Engineer or higher level of certification, take an exam comprised of multiple choice questions and then provide a written response to one essay question.

You may wonder why these exams include the essay question. The answer is actually rather simple.

When the Senior Broadcast Engineer certification was created, it was felt that an additional element should be added in the exam process to demonstrate the applicant’s proficiency in the field of broadcast engineering. An applicant with 10 years or more of experience should be very capable of answering an essay-type question related to a job responsibility that he or she has held. This type of question affords the examinee an opportunity to demonstrate from practical experience his or her knowledge of a subject. The same principle holds true of an individual seeking to obtain a specialist certification.

Similar to other SBE certification exams, 50 multiple choice questions are randomly selected from a pool of questions by computer. Each question is worth two points. During this portion of the exam, standard reference texts can be used. While it is important for an individual to know the material by heart, it is just as important to demonstrate that he or she is able to find the correct answer when needed. We often use reference materials in our jobs and, therefore, the same opportunity is given in answering the multiple choice questions. After completing the multiple choice questions, the examinee then provides a written response to an essay question.

You may be asking how the essay question is selected, administered during the exam and graded. When an applicant completes the application to take an examination for a senior level they will be asked to provide a record of experience of their last 10 years. Many applicants also attach a biography or resume that provides further experience details. The certification director at the SBE National Office will assign a member of the SBE National Certification Committee the task of reviewing the application. Upon approving the application, the committee member selects three essay questions from a question pool. The question pool covers various topics related to radio and television. The committee member selects three questions based on the experience information submitted by the applicant. This is why it is important for applicants to provide detail on their experience.

For the specialist examination, however, a single essay question will be selected by the national office that is targeted specifically for the specialist certification being sought.

For the senior level, after the examinee answers the 50 multiple-choice questions, the he/she then chooses one of the three essay questions selected by the certification committee member. The three essay questions are provided to the examinee in a sealed envelope. The examinee will choose one essay and write a response. Unlike the multiple choice question portion of the exam, reference texts are not allowed to be used while answering the essay. For the specialist exam only one question will be provided as mentioned earlier.

A minimum passing score of 84 is required for an examinee to obtain certification for senior or specialist certification. The essay question may contribute up to 20 points towards this 84-point total. This means a person must score a minimum of 64 points on the multiple-choice questions to pass the exam assuming they achieved a perfect score of 20 points on the essay question. As you can see, there is considerable worth placed on the essay question.

Here is how the grading of the essay question works. Once the multiple-choice questions have been graded and it has been determined that an individual has scored at least 64 points, the essay question response is then sent to three members of the National Certification Committee to be graded. The three members independently grade the essay and return their scores to the SBE National Office. The national office averages the three scores to obtain a single score for the essay response. The single score for the essay must be at least a 10 for the individual to pass. If the averaged essay score is a 10 or greater, the essay score is added to what was achieved on the multiple choice questions. This becomes the total score of the examination.

So how does someone prepare for the essay question? Because I have graded several essay responses, I will offer my own thoughts and observations that I feel could help you to prepare to take the essay portion of the senior or specialist examination.

1. Submit an accurate application. Be specific on your application and other documents you attach as to your work experience and responsibilities. This greatly assists the committee member assigning your essay questions to assign those questions that are in line with your experience.

2. Neatness counts. On the essay response, be neat in any drawings you provide and ensure your writing is legible. The committee person assigned to grade your question is a grader and not a mind reader. Messy drawings and handwriting may work against you if the grader cannot follow or understand what you have written. Hint: A small straightedge ruler with no formulas or notes on it may be useful for any supporting drawings you may need to provide.

3. Be detailed. Provide appropriate supporting detail on any drawings or explanations. Think of this in terms of...
Certified Professional Broadcast Engineers® and Certified Senior Broadcast Engineers® who have maintained SBE certification continuously for 20 years and are current members of SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment may be granted Life Certification if they so request. If the request is approved, the person will continue in his/her current level of certification for life.

CERTIFIED PROFESSIONAL BROADCAST ENGINEER® (CPBE®)
Henry Rodwiedel, Crown Point, Ind. – Chapter 26

CERTIFIED RADIO ENGINEER™ (CBRE®)
Gerald Dalton, Arlington, Texas – Chapter 67

Robert Griffin, San Luis Obispo, Calif. – Chapter 40

CERTIFIED BROADCAST NETWORKING TECHNOLOGIST® (CBNT®)
Gerald Dalton, Arlington, Texas – Chapter 67

Natural text for the rest of the page...
preparing something that would be reviewed by your peers, boss or other industry professionals.

4. Be thorough. Ensure that all the items mentioned in the essay question are answered fully. Read the question carefully. It may be worth making a checklist to ensure you address all the areas required. Once your essay answer is complete, reread the question to verify that all the elements are included.

5. For block diagrams, unless explicitly stated otherwise, an “electrical one-line” flow drawing is being requested and not a free hand artist rendering of what equipment visually looks like.

I hope this helps you understand the importance of the essay question and the process used to assign and grade it. Do not let the essay question intimidate you from obtaining the senior or specialist level of certification that you deserve. As you answer the essay question, let your experience “do the talking” and let those creative juices flow. I state this from experience as I took the senior level exam and passed.
Ennes Trust awards three scholarships

The Ennes Educational Foundation Trust has awarded three scholarships to broadcast engineering and technology students. Members of the SBE, Michael West, Jason Davis and Clint Mason have been selected by the Scholarship Committee to receive funding to further their education.

The Harold E. Ennes and Robert D. Greenberg scholarships are awarded to individuals interested in continuing or beginning their education in broadcast engineering and technology. The Youth Scholarship is an award for a graduating high school senior interested in broadcast engineering as a career. Each scholarship awarded this year is for $1,500.

SBE Immediate Past President Vinny Lopez, CEV, CBNT said, "Much time and consideration was put into the selection of these three deserving candidates by the Scholarship Committee. I wish them the best of luck as they continue their education in broadcast engineering."

ELECTION from page 1

Ballots were tabulated on August 25 by the official board of tellers, consisting of nine members of Chapter 25 of Indianapolis, Ind. Upon hearing the election results, President-elect Hogan said, "I look forward to serving the society and continue the excellent efforts the SBE has made in certifying, educating and networking broadcast engineers."


Elected to serve as vice president of the society was Joseph Snelson, CPBE, 8-VSB of Henderson, Nev. Snelson is vice president of engineering at Meredith Corporation. Elected to a first term as secretary was James E. Leifer, CPBE of Boynton Beach, Fla. Leifer is director of engineering and IT for Clear Channel Communications South Florida. Elected as treasurer was Jerry Massey, CPBE, 8-VSB, AMD, DRB, CBNT of Greenville, S.C. Massey is southeast corporate regional engineer for Entercom Communications and director of engineering/MIS for Entercom Greenville.

West, of Napa, Calif., is the recipient of the Harold E. Ennes Scholarship. West is a sophomore at Napa Valley College in the Broadcast Television Engineering Technology Program and is expected to graduate in May 2012. West is currently learning from maintenance engineers at KTVY Channel 2 in Oakland, Calif. as he participates in an internship. As a volunteer for the Napa High School Marching Band, West works at football games to help raise money for scholarships for graduating seniors. West plans to purchase textbooks and supplies with the funds.

Davis, of Spokane, Wash., is the Robert Greenberg Scholarship Recipient. Davis, a sophomore at Napa Valley College is the recipient of the Robert D. Greenberg Scholarship. Davis is southeast corporate regional engineer for Entercom Communications and director of engineering/MIS for Entercom Greenville.

An induction ceremony will take place at the SBE Annual Membership Meeting. The meeting is part of the SBE National Meeting, September 27-28 in Columbus, Ohio and is being held in conjunction with the Ohio Association of Broadcasters' (OAB) Ohio Broadcast Engineering Conference. Supporting the OAB are the five SBE chapters located in Ohio, which include Chapter 33, Southwest Ohio; Chapter 52, Columbus; Chapter 70, Northeast Ohio; Chapter 104, Toledo; and Chapter 122, Youngstown.

The SBE will conduct the board of directors election online in 2012. The objectives of the electronic voting system are to make it more convenient for members, increase the participation and conduct the vote in a more financially efficient manner. Members will have the choice to opt out of the electronic ballot to receive their ballot and vote by mail.
SBE Leadership Development Development Course

gets successful reviews

by David Priester, CPBE
SBE Education Committee Chair

Rodney Vandeven, Purdue University Professor of Organizational Leadership and Supervision, led the 42nd SBE Leadership Development Course in Atlanta, Georgia August 2-4.

Twenty-five students from six companies were in attendance. Subjects in the three-day intensive and interactive course included a self-assessment, understanding generational differences, motivation, how leadership is an attitude, building winning teams and the function and nature of leadership. Student reviews conclude that for a second year in a row, the self-assessment study section of the course is the most popular. This section teaches engineers to understand their own leadership style and how to respond to various personalities.

On a course evaluation form, Robbie Winter, CTO said, “I learned more about myself in three days than I have in the last 30 years!”

The course is designed to benefit both individuals, as well as their employers. Participants were asked how their companies could expect to benefit from the SBE Leadership Development Course. One student said, “They can expect a more rounded leader who is an agent of change that will effectively communicate to our staff’s desire.”

Initial plans for the 2012 SBE Leadership Development Course entail that the course will be held again in early August, however the specific date and location have not been determined. Additional details will appear on the SBE website and in SBE publications as they are confirmed.

COURSE from page 1

audio concepts such as levels, mono and stereo, and multichannel audio. This is followed with a discussion of digital audio, including sampling and quantization, interfaces, and digital audio metering. Audio compression for television discusses the AC-3 audio compression system used in ATSC digital broadcasting. Finally, there is a chapter that looks at audio storage and recording.

This course is for anyone who needs a good grounding in television video and audio, from the relative newcomer who needs to learn all about how television video and audio work, to the experienced engineer that needs to know something about digital. The cost for the course is $99 for SBE Members and $139 for non-members.

The other course newly released in SBE University is The New Lifecycle of Media - IP and File Based Architecture and Workflows. Gary Olson, who is a media technology and business advisor specializing in the transition of traditional media workflows and business processes, wrote this course. He is a recognized industry leader with practical experience in the analysis, selection and uses of technology and is an innovator in media technologies and broadcast design.

The intent of this course is to review the entire IP and file based architecture, the changes in workflows and the broad spectrum of technologies that make up the environment.

Chief engineers, station managers, broadcast and production engineers, media IT engineers, IT technicians and managers will benefit from this course, as well as anyone working or looking to work in media production & distribution and content creation. The cost for the course is $99 for SBE Members and $139 for non-members.

MARK YOUR CALENDAR

Oct. 18 - SBE RF Safety Course
Instructor: Richard Strickland of RF Safety Solutions
Cost: SBE members - $85; non-members - $125

Nov. 5 - NYC Ennes Workshop
Visit the Ennes Workshops page in the Education section on www.sbe.org for a complete list of instructors. Cost: SBE members - $60; non-members - $75; students $50

Jan. 12 at 2 p.m. - Webinar by SBE: Chief Operator Responsibilities
- What Should I be Doing?
Instructor: Dennis Baldridge, CPBE, 8-VSB, AMD, DRB, CBNT
Cost: SBE members $49; non-members $69

For more information or to register for programs brought to you by the SBE, visit the Education page on the SBE website at www.sbe.org.
Volunteers, lifeblood of the society

by John L. Poray, CAE
SBE Executive Director

During this time of year we see a number of great volunteers who have served on the national board conclude their service. Some have served the maximum amount of time set by the limitations outlined in the SBE By-laws, while others move on to devote more time to family, careers or other volunteer interests.

It’s during this time, perhaps more than any other time of the year that I find myself reflecting about those who have served the SBE in a volunteer capacity and the contributions they have made that have helped mold, shape and drive the organization at every level. So many members have contributed their time, energy and expertise to lead a chapter, compile a newsletter, organize chapter monthly programs, maintain a website, proctor certification exams, serve as a local frequency coordinator, keep track of a chapter’s finances and records, or any number of other volunteer roles. Each volunteer effort has contributed towards the objective of providing a program that is an educational benefit to local members, as well as a source for professional interaction and an opportunity to recognize experience and expertise.

Many national board members have, almost without exception, served first at the local level and have made the commitment over the years to help lead the society by serving on the national board or on one of our committees, as an author, course instructor or program organizer.

With these contributions in mind, it’s imperative to remember that to keep the SBE, at every level, moving forward and a relevant, valued asset to each member, we must continue to develop volunteers who will lead each chapter and serve on the national board and do so with a commitment to enhancing the career development of our members and the advancement of the field of broadcast engineering.

Broadcasting faces challenges today that are among the most difficult the industry has ever seen. Technology and the economic model in which broadcast stations operate are in constant change. As the professional organization for broadcast engineers, and that term includes an array of titles and responsibilities, we are dependent on members who are willing to lead and serve if we are going to meet those challenges. If your chapter is in need of someone to lead a task, chair a committee or maybe chair the chapter, consider volunteering.

“If your chapter is in need of someone to lead a task, chair a committee or maybe chair the chapter, consider volunteering.”

Thank you to the following supporters for their scholarship funds contributions:

**Harold Ennes Scholarship**
Chapter 24, Madison, WI

**Robert Greenberg Scholarship**
Chapter 24, Madison, WI

**Youth Scholarship**
Chapter 24, Madison, WI

The Ennes Educational Foundation Trust offers scholarship, presents educational programming and provides grants for educational projects that benefit 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.

**Question on page 3**

Answer: C - Broadcast ATSC 8VSB carries a symbol rate of 10.76 Mbaud, a gross bit rate of 32 Mbit/s, and a net bit rate of 19.39 Mbit/s of usable data. The net bit rate is lower due to the addition of forward error correction codes.

**OCTOBER 2011**

**ENNES**

**E D U C A T I O N A L**

**F O U N D A T I O N T R U S T**

**Thank you to the following supporters for their scholarship funds contributions:**

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Chapter 24, Madison, WI

**Robert Greenberg Scholarship**
Chapter 24, Madison, WI

**Youth Scholarship**
Chapter 24, Madison, WI

The Ennes Educational Foundation Trust offers scholarship, presents educational programming and provides grants for educational projects that benefit 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.
In the Circle …

David L. Erickson, CEAV, CBT, CBNT, flight simulation technician lead for L-3 Communications, Link Simulation and Training/Textron- AAI. on the Elmendorf AFB. Member of Chapter 89, Anchorage, Ala.

**Focal Point:** I am proud to be a member of SBE since 1996 and amongst such distinguished fellow technicians and engineers. I have been involved with SBE since start of working life in the mid to late seventies.

**Getting Started:** I started out my working life in FM radio, working for Augie Hibbert’s FM station KNIK in about 1977. He also owned an AM station, KBVR, and the local CBS affiliate KTVA. So, desiring further challenges technically and also being interested in photography/videography/visual imagery, I soon went to work for KTVA as a production assistant/cameraman/tape operator. Being a small station, and with Augie’s philosophy of giving young-uns a chance, I was able to partake in pretty much every function involved with broadcasting on the production side, which was a lot of fun and definitely a learning experience.

**Sphere of Influence:** I met and worked with a broadcast engineer at the University of Alaska who since has become a lifelong friend and mentor. A mentor then, and a mentor now! I can’t speak enough of how important I feel mentorship is; one learns from several sources and multiple ways, i.e. from going to school and reading books and on-the-job training, but having a good mentor is perhaps a better way to learn and just as important if not more so than the other paths to enlightenment. My mentor and friend is SBE Life Member Truman Walrod III. I have worked with many fine technicians and engineers, but Truman stands out. He and the other SBE engineers I have worked with have made me realize that the SBE is a fine organization, to include individuals such as these.

**When I’m not working I …** am a proud member of the U.S. Coast guard Auxiliary. Lately I also partake in the rewarding hobby of High–Power Rocketry. Designing and constructing rockets is very interesting, and there’s nothing like pushing that launch button, and turning money into smoke in the blink of an eye! I also enjoy playing guitar and tinkering with my 1969 Olds Toronado.

**Job Satisfaction:** My career took a skew, in the mid-nineties to accommodate my interests and qualifications in the field of aviation. I got involved with Flight Simulation. Flight sims are complex beasts, and include sophisticated video and audio systems amongst the rest of their technology. Possessing A & P and Pilot and Ground Instructor licenses allowed me to increase and build on the previous experience and qualifications and expand my world. Flight Simulation is an environment that would make any techie a happy camper and keep a video and audio technician or engineer quite interested, and busy.

**You may not know …** that in the eighties I went to work for the University of Alaska, as the first operating engineer of the fledgling and pioneering Learn Alaska Network, which was one of the earliest satellite-based educational television networks. We were all quite proud of this accomplishment, it was rare for Alaska to do any pioneering work in any technical field, but we sure did with this! Other nations such as Indonesia came to see how we did things, and then went home and instituted similar networks of their own. At one point, counting affiliated network stations, which were actually TVRO’s coupled to LPTV transmitters, the Learn Alaska Network was, I believe, the fifth largest network in the U.S., with approximately 252 affiliated stations. Every city, town, and village with more than 25 people had this educational network available to them.

**Favorite Gadget:** My favorite gadget is my rocket launch tower and launch controller I designed and constructed. Works like a champ!

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**SCHOLARSHIP from page 9**

Greenberg Scholarship winner, Davis is enrolled in Spokane Community College in the Biomedical Equipment Program. Davis realized his interest in the broadcast engineering field after studying RF and fiber optics in a college course. Davis plans to use the scholarship for tuition for a networking certificate or degree.

Mason, of Napa, Calif., is the recipient of the Youth Scholarship. Mason is a 2011 graduate of Napa High School and is the sound technician for an area church. Mason is a recent participant in a TV Television Production Workshop and is a freelance video editor. Mason will be using this scholarship for his tuition at Gonzaga University where he will major in broadcast production and hopes to acquire an internship at ESPN while there and work for the company once he graduates.

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The Harold Ennes Scholarship Fund Trust was initiated by Chapter 25, Indianapolis of the SBE in 1980 in memory of Harold E. Ennes, author of many textbooks for broadcast and broadcast-related communications training and a member of the Indianapolis chapter. Ennes was a member of the SBE National Certification Committee and made many contributions to the early development of the Certification Program. To encourage greater growth, Chapter 25 transferred the trust to the SBE national organization to administer in 1981. Scholarships presented by the Ennes Trust are made possible by donations from the SBE members and chapters and companies that do business with the broadcast industry. More information on the Ennes Trust can be found on the SBE website.

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**SBE Members on the Move**

LeRoy Wolniakowski, CPBE is the newest inductee to the Wisconsin Broadcasters Hall of Fame.

Marty Hadfield, CPBE joins Clear Channel Radio Seattle as director of engineering.
Chapter 59 talks EAS and CAP

by Chriss Scherer, CPBE, CBNT
cscherer@sbe.org

SBE Chapter 59 Kansas City was formed in 1978 by a group of mostly TV engineers, which included past SBE President Jack McKain and SBE Vice President-elect Joe Snelson. Emerson Ray, then the RCA rep for the area was also instrumental in starting the chapter.

In addition to McKain, two other SBE past presidents reside within the area: Brad Dick, who lives in the Kansas City metro but is a member of Chapter 3, and myself.

The chapter holds occasional joint meetings with SBE Chapter 3 and the Kansas City section of the Audio Engineering Society. Some of the more unique meetings the chapter held were a tour of the FAA Flight Center where members were able to sit with air traffic controllers (this was pre-9/11) a tour of the Kansas City Crime Lab and several tours of the National Weather Service facility in Pleasant Hill, MO. Having an FCC Field Office in Kansas City also allows chapter members to hear from FCC field agents on FCC matters. On the eve of the analog TV shutdown, the chapter held a wake for analog TV complete with a coffin for some aging analog TV equipment, and on another occasion the chapter also held its own broadcast antiques roadshow, which included a visit from a vintage broadcast equipment appraiser. The chapter also holds an annual picnic as a purely social event.

The chapter has been recognized in the SBE Awards Program for best chapter website in 2008-2009 and most interactive chapter in 2001.

While the chapter’s roots had a TV interest, the core group today leans to radio, but chapter leaders seek a balance of TV/video and radio/audio presentations with a touch of general maintenance, IT, security and occasional non-broadcast topics.

Another area where the SBE has made significant progress, is legislative issues. Each year the SBE Board of Directors adopts legislative goals based on recommendations from the government relations committee, general counsel and interested members. The plan serves as a guideline for the society on how it is to focus its resources in the areas of legislation and media regulation that affect membership. Having completed most of the 2011 Legislative Goals the new government relations committee chair has been charged with developing goals for 2012.

Our education and certification programs have been growing stronger every year. The education program provides affordable education to our members using various instructional methods. These SBE University and online programs are designed to help broadcast engineers keep up with the ever-changing demands of the job and the industry, help prepare for SBE Certification and qualify for SBE Recertification. If you feel there is a course that is not available but should be, please contact Kimberly Kissel by email at kkissel@sbe.org. SBE Certification is recognized nationally and internationally. The SBE has been contacted on various occasions to help develop other certification programs in allied fields outside of the United States. We offer certifications from the operator to the Certified Professional Broadcast Engineer. There is a certification level for every broadcast engineer and technician. Our Certified Broadcast Network Engineer certification will be the latest offering from the certification program. If you have been putting off getting certified, speak with your local chapter certification chair to see what level would be appropriate for your training and experience. Members can also contact Megan Clappe, mclappe@sbe.org at the national office for help or advice.

PRESIDENT from page 4

members, vendors, the media and others learn the details of your chapter’s upcoming meetings.

The Web Toolkit, Web Hosting and Member e-mail list sections contain helpful information about chapter websites and email addresses. Chapters in need of a host for their website or who wish to establish email lists for their members to communicate among themselves may find the Electronic Communications resource article helpful.

The SBE Logos section provides instructions on correct usage of the official logo. SBE chapters and members may use the official SBE logo on chapter newsletters, websites, meeting report forms, etc. Members may use the official logo to indicate their status as an active member on business cards, personal websites, letterhead, etc.

If you feel there is a course that is not available but should be, please contact Kimberly Kissel by email at kkissel@sbe.org. SBE Certification is recognized nationally and internationally. The SBE has been contacted on various occasions to help develop other certification programs in allied fields outside of the United States. We offer certifications from the operator to the Certified Professional Broadcast Engineer. There is a certification level for every broadcast engineer and technician. Our Certified Broadcast Network Engineer certification will be the latest offering from the certification program. If you have been putting off getting certified, speak with your local chapter certification chair to see what level would be appropriate for your training and experience. Members can also contact Megan Clappe, mclappe@sbe.org at the national office for help or advice.
Welcome New SBE Members:

New Members
William J. MacDonald - Mesa, AZ
Jean H. Hantid - Seatac, WA
Hunter M. Gorman - Shreveport, LA
Kevin M. Watson - APO, AE
Peter P. Zatkowski, IV - Orange, CT
Mohammad A. Haqqani - Houston, TX
Alexander C. Hubbard - West Greenwich, RI
Joseph J. Gerardi - New York, NY
Daniel L. Grover - Siler City, NC
Evelyn J. Walton - Indianapolis, IN
David E. Budwash - Winston, GA
William A. Steinhour - Herndon, VA
Charles E. Cooper - Midland, TX
Martin J. Kilcoyne - Cortlandt Manor, NY
Dan Agostino - Austin, TX
Jan L. Myers - Rising Fawn, GA
Thomas Bohnet - Fairbanks, AK
Franklyn S. Ginsburg - Washington, DC
Grant McGilvray - Denver, CO
Scott Sarkesian - Gardendale, AL
Mark Turner - Chesterfield, VA
Richard White - Cave Creek, AZ
James Regis - Pine Forest, FL
Eric E. Tepe - Smyrna, GA
Morgan Grammer - Lexington, KY
Tony D. Knox - Santa Clarita, CA
Darrell P. McCalla - Mountain Brook, AL
John R. McLaughlin - Mount Joy, PA
John C. Nielsen - Gretna, NE
Christopher L. Phillips - Redwood City, CA
Wayne Quan - Sacramento, CA
Thomas Romero - Truckee, CA
Jose Toscano - Doral, FL
Marcin Zawila - Brooklyn, NY
Bradley E. Giardello - Owings Mills, MD
Curtis D. Gomez - Burbank, CA
Jason Jackson - Louisville, KY
James W. Stanley - New Albany, IN
Scott O. Truchenniller - Chattanooga, TN
Paul Weaver - Temecula, CA
Robert E. Askew - Powder Springs, GA
Wilfred A. Meys - Superior, WI

Reinstated Members
James C. Moore - Wesson, MS
Steven R. Finton - Quincy, IL
Joshua K. Arensberg - Los Angeles, CA
Kris D. Anderson - Denison, TX
Michael S. McCune - Glenoaks, CA
Scott A. Clifton - Naperville, IL
William L. Sutton - Greenville, MS
William F. Garner - Germantown, TN
Thomas J. Alessi - Darien, CT
Stephen B. Pless - Auburn, GA
Geoffrey Wheeler - Yorktown, NY
John W. George - Alexandria, VA
Timothy J. White - Tallahassee, FL
William R. Hartman - Spring, TX
Jon C. Hartmeyer - Zanesville, OH
Russ A. Abernathy - Cordova, TN
Jessica A. Rye - Wichita, KS
Donald J. Trapp - Westminster, CO

New Student Members
Eric D. Hughey - Lee’s Summit, MO
Clint T. Mason - Napa, CA
Ledion Isufaj - Columbus, OH
Michael J. DeLaRosa - Palmyra, MO
Adam R. Heege - New Milford, CT
Carl B. Polson - East Wenatchee, WA
Ricardo R. Velez - Concord, CA

New Associate Member
Alfonso O. Lopez - Miami, FL

New Youth Member
Max B. Schwartz - Beverly Hills, CA

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