



October 2014

Society of Broadcast Engineers Chapter 24 Newsletter Madison, Wisconsin



Next Meeting

Wednesday, October 22

UPPER MIDWEST REGIONAL SOCIETY OF BROADCAST ENGINEERS MEETING

SPECIAL GUEST SPEAKER – SBE PRESIDENT JOE SNELSON

As the SBE celebrates its 50th anniversary, we look back at the history of the Society of Broadcast Engineers with a special emphasis on the local Wisconsin chapters. There will be a presentation of chapter memorabilia from the archives!



5:30 to 6:00 PM - Dinner (included with Weds. registration) Marriot Madison West 1313 John Q. Hammons Drive Middleton, WI

Meeting and Program at 6:00PM Marriott Madison West 1313 John Q. Hammons Drive Middleton, WI

Visitors and guests are welcome!



SBE President at this month's Broadcasters Clinic

>>> by Leonard Charles, Clinic Chair

The featured speaker at the All-Chapter SBE meeting at the Broadcasters Clinic will be SBE President Joseph Snelson. The meeting will take place on Wednesday evening, October 22nd at the Marriott Madison West. President Snelson will join Clinic attendees who represent many Chapters across the country. He will lead a discussion of the past 50 years of the SBE on this golden anniversary of the Society.

A specially-produced anniversary video will be played which features many early SBE leaders and details the beginnings of the organization back to the first meeting in Chicago. [You will recognize some familiar faces in the video.] Registration at the Clinic is not required to attend this special meeting. Guests are always welcome at any SBE meeting.



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Coming Up

- Wed., Nov. 19 Closed Captioning Live Demonstration
Thur., Dec. 18 Holiday Party- Fitzgerald's in Middleton

FCC Auction Rulemakings

>>> by Tom Smith

At a September 30 meeting, the Commission took up three rulemakings concerning the Incentive Auction and TV repacking. The first one is a Declaratory Ruling that the Commission stated was to clarify that it would preserve TV stations coverage after the repacking of the UHF band. The notice was short, only five pages with three additional pages for dissents by Commissioners Aji Pai and Michael O'Reilly. The notice was an explanation of the proposed use of the updated OET 69 standards for predicting a stations coverage when computing possible interference between stations as new channels are allocated. The two dissenting Commissioners stated that the notice was part of a larger notice not yet issued and that it was released early in part to address a lawsuit by the National Association of Broadcasters (NAB) objecting to the new OET 69 standard. The NAB fears that by using the new update OET 69 standards station will lose coverage due to increased interference.

The second and third rulemakings that the Commission took up on September 30 concerned proposed rules for wireless microphones and TV broadband devices. Wireless microphones was covered in both rulemakings. The first rulemaking covered wireless microphones and TV white space devices during and after the UHF band repacking and the second rulemaking covered possible new spectrum allocations to avoid congestion and interference to those using wireless microphones.

In the proposed rulemaking concerning both wireless microphones and TV

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**Meeting Minutes**

from the September 2014 Business Meeting

The September meeting of Chapter 24 of the Society of Broadcast Engineers was held Thursday, September 18 at 7:00pm at WISC Television in Madison, WI. Of 18 attendees, 16 were members and 11 were certified.

Chair Kevin Trueblood called the meeting to order and the August minutes were approved as published.

The Treasurer's e-mailed report included: There were two Sustaining Membership fee deposits in the past month; Full Compass Systems and Resonant Results.

There was nothing new to report from newsletter, frequency coordination or membership.

Fred Sperry reported 17 sustaining members.

Steve Paugh reported our next meeting will be Wednesday, October 22 at the Broadcasters Clinic. Upcoming meetings will include a Live Captioning demonstration on November 19 and our Holiday Gathering will be December 18.

Leonard Charles e-mailed the National report: The one-hour Annual Membership Meeting, on October 8 at 2:00pm CT, will be live streamed. Members will be able to go to the SBE home page, <www.sbe.org> to link to the stream. On September 24 at 1:00pm CT is a live one-hour SBE webinar on Field Observations of Elevated FM HD (IBOC) Power Levels. Presenter is Alan Jurison of Clear Channel Communications.

There were no professional announcements made.

The meeting was adjourned at 7:11pm and Mike Schmidt of Heartland Video presented a program on Video Ancillary Data (VANC) in the broadcast stream.

ML Deets, Chapter Secretary



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>>> **AUCTION** continued from page 1

broadband devices, the rule changes for wireless microphones were not as extensive as TV broadband devices. In the proposed rule, wireless microphones would still be allowed to occupy unused TV channels and would be allowed to use the guard bands between TV and licensed broadband channels and the guard band between the down and uplink broadband spectrum. Wireless microphones would lose their two dedicated TV channels. Unlicensed wireless microphones would have to operate with reduced power in the broadband guard bands and use the whitespace databases to prevent interference.

The proposed rules for TV broadband devices are more extensive. TV broadband devices would also be allowed to operate in the licensed broadband guard bands. The Commission is also proposing to allow TV broadband devices to operate on TV channels 3 and 4 which were reserved for modulators from VCR's and other TV devices to provide signals to TVs. The Commission noted that the use of those channels for that purpose is declining. Use of channels 14-20 for personal TV broadband devices was also proposed. Currently only fixed units can use those channels. A number of tables were presented that would allow TV broadband devices closer to the edges of a TV stations coverage area. The tables set a number of power levels and antenna heights for the spacing of TV broadband devices to the service contour of a TV station. As the TV broadband device is placed closer to the station, the power and antenna height is reduced. Fixed TV broadband devices would also be allowed to operate on adjacent channels to TV stations if there are two open channels between two TV stations. Currently the rules call for a minimum of three open channels with the TV broadband devices occupying the middle channels and leaving the two channels adjacent to TV stations open. In order to use two open channels, the TV broadband devices would straddle the boundary between the two open channels using three megahertz from each. Another proposal would allow for fixed TV Broadband devices to operate with 10 watts at greater tower heights in rural areas. The FCC is seeking comment

on what would define a rural area. They suggest that a fixed TV broadband devices could provide greater service in many rural areas as there are fewer TV stations to interfere with.

One proposal that wireless microphone users will like is that in the 11 MHz band between licensed broadband uplinks and downlinks, licensed wireless microphones would have 4 MHz allotted to them with one MHz serving as a guard band and the remaining 6 MHz would be shared by unlicensed wireless microphones and TV broadband devices.

The second proposed rulemaking on wireless microphones concerns the future of wireless microphones. The rulemaking proposes two specific rule changes. The first would prohibit the import, manufacture or sale of wireless microphones in the 600 MHz TV band as part of the clearing of the band for wireless broadband use. The second proposal would set new emission standards to allow for more spectrum efficient operation of wireless microphones. Other items discussed in the notice include limited operation of wireless microphones within the signal contour of a TV station with the wireless microphone operating within the same channel. Operation of wireless microphones in a number of other bands was discussed including other broadcast auxiliary bands, unlicensed bands used by broadband devices (WI-FI), cordless phones, etc. and bands allotted for other uses which are either light uses or limited to only a few limited areas. It was suggested that wireless microphones could possibly operate on frequencies as high as the 7 GHz TV auxiliary band.

The Declaratory Ruling on OET 69 can be found at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0930/FCC-14-143A1.pdf). The rulemaking on wireless microphones and TV broadband devices can be found at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db1001/FCC-14-144A1.pdf). The rulemaking on the future of wireless microphone spectrum can be found at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0930/FCC-14-145A1.pdf).



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Amateur Radio News

compiled by Tom Weeden, WJ9H

- A Wisconsin radio amateur lost his life on September 16 as he was performing maintenance on the 100 foot tower of a fellow ham. Killed in the fall was 59-year-old James G. Linstedt, W9ZUC, of Eau Claire, who succumbed to injuries sustained after he fell 95 feet from a tower owned by Ronald Anderson, W9RMA, in Eagle Point, just outside of Chippewa Falls, on the shores of Lake Wissota. Linstedt was said to have been an experienced climber. Although he had been wearing an over-the-shoulder safety harness, he apparently had failed to secure himself to the tower before the mishap occurred.

An active radio amateur, Linstedt was a member of the Chippewa Valley Amateur Radio Club and once served as the club's president.

- An intense effort by ARRL officials during the few days in September that Congress was in session has resulted in 47 co-sponsors for the Amateur Radio Parity Act of 2014, H.R. 4969 <<https://beta.congress.gov/bill/113th-congress/house-bill/4969>>. Another half-dozen or so US House Members have indicated that they will sign on when Congress returns, something they can do only while Congress is in session. Congress went into recess on September 19.

H.R. 4969, introduced in the US House of Representatives with bipartisan support in late June, calls on the FCC to apply the "reasonable accommodation" three-part test of the PRB-1 <<http://www.arrl.org/prb-1>> federal pre-emption policy to private land-use restrictions regarding antennas. The limited PRB-1 pre-emption currently applies only to state and municipal land-use ordinances. The FCC has indicated its reluctance to provide the same legal protections from private land-use agreements —

often called covenants, conditions, and restrictions or CC&Rs — without direction from Congress.

- Actor and comedian Tim Allen not only plays an Amateur Radio operator on television, now he is one! Allen got his Technician license on September 4 but did not release the news until late September. In his weekly ABC comedy TV show "Last Man Standing," Allen's character Mike Baxter, is supposed to be KA0XTT, and the show has featured ham radio in some episodes.

"Last Man Standing" producer John Amodeo, NN6JA, told the American Radio Relay League that the agreement with Allen was that "we would not publicize his license until he approved it." Allen revealed to Tom Medlin, W5KUB, for one of Medlin's webcasts that he had passed his Technician license test but did not mention his call sign, Amodeo said. "Obviously, most hams are capable of finding Tim's call sign, if they feel the need," he conceded.

More than 2 dozen members of the "Last Man Standing" crew — and now Allen, its star — have been inspired by the show's Amateur Radio component to get licensed. On September 28, the K6H "Hollywood Hamnado" special event station was on the air, with "Last Man Standing" crew members at the helm. The Southern California-based PAPA Repeater System, in association with the Broadcast Employees Amateur Radio Society (BEARS) and Disney Emergency Amateur Radio Service (DEARS) sponsored the special event.

(Excerpts from the American Radio Relay League's <arrl.org> web site)



New TV Forms

>>> by Tom Smith

On September 29, the FCC announced the first phase of the Licensing and Management System (LMS) which will eventually replace the Consolidated Database System (CDBS) that the FCC currently uses to provide database information on broadcast facilities and as a portal for filing licensing applications for broadcast facilities. As part of the first phase, the FCC is replacing the application for broadcast stations (Form 301) and the application for a license to cover a construction permit for TV (302-DT) with Form 2100. Form 2100 with Schedule A replaces Form 301 and Form 2100 with Schedule B replacing Form 302-DT. Eventually, there will be schedules to cover all radio and TV applications, renewals and assignment of licenses. The use of the new form became effective on October 2nd. The form can be found at (<http://www.fcc.gov/forms>). The FCC requires that the form be filed electronically. The Licensing and Management System can be found at (<https://enterprise.filing.fcc.gov/dataentry/login.html>). To log into the LMS, stations are to use their FRN number and password instead of the CDBS log-in and password.

On September 25, the FCC released a notice seeking comment on a form to be used by TV stations, cable systems and satellite providers for reimbursement for costs related to TV stations having to move to a new channel when the UHF TV band is repacked into fewer channels. There were two attachments to the notice. Attachment A is the sample form the FCC is asking comment on. Attachment B is the instructions for the form. The application asks for data on transmitter updating or replacement, antenna and transmission line replacement, transmitter building changes and updates, tower modification, replacement and rigging costs, engineering costs for both transmitter and tower work. Costs concerning permits, disposal of obsolete equipment and notifying the public and cable and satellite providers of the channel change, as well as other costs related to the transitions, are also covered.

>>> **FORMS** continued on page 6

National Membership Meeting Held October 8

>>> compiled by Paul Stoffel

Notes taken while viewing the web streaming of the SBE National Membership meeting held at the 2014 *SBE Chapter 22 Broadcast and Technology Expo* in Verona, New York, on October 8.

- SBE President Joseph Snelson welcomed those in the audience and viewers watching on-line.
- Snelson introduced the SBE 50th Anniversary video produced by the National office. (Video was shown at the NAB Convention and can be seen at the Broadcasters Clinic on Wednesday evening during the Chapters meeting.) Snelson commented that the SBE has experienced tremendous growth over the 50 years, starting with the first SBE meeting held on April 5, 1964.
- Snelson welcomed Gino Ricciardelli, who talked about the start of the SBE, beginning with Chapter 1 in Binghamton, New York. Ricciardelli said he was also the frequency coordinator for Chapter 1 for about 30 years. <http://www.stny.info/sbe1/> Ricciardelli was recognized as an SBE Fellow during the SBE National Awards Dinner following the membership meeting.
- James Leifer, National Secretary Report: National Membership in April was 4,946.
- Andrea Cummis, National Treasurers report: Operating revenues have exceeded expenses, with a net income of \$90,244.
- Tim Anderson, National Membership Report: 48 new members from the National membership Drive, "Together, Shaping Our Future for Half a Century"
- Ralph Hogan, National Certification Report: SBE "CertPreview" questions to be reviewed. Upcoming, the SBE Certification program will celebrating its 40th birthday.
- Wayne Pacena, Education Committee: Many people using the webinars and SBE University, including courses "Perspectives I and II". Perspectives III will be ready in 2015. Additional webinars, such as ATSC 3.0 and more IP Networking, will be available. Look for another SBE Leadership Development session during the summer of 2015. Member input and ideas are needed to continue providing professional development programs. Also needed is your knowledge and expertise in providing training to others.
- Snelson recognized the 2013-2014 board of directors and officers.
- Chris Imlay presided over the installation of the new board of directors and officers.
- Snelson recognized the board of directors who were beginning their 2nd term.
- Snelson announced the new National committees chairpeople.
- Snelson remarked about wrapping up the SBE's 50th anniversary celebration. He talked about the two new National committees: Mentoring and Social Media. He talked about new SBE branding and adding a tagline to the SBE logo, "*The Association for Broadcast and Multimedia Technology Professionals*", to better explain what the SBE provides.



http://www.sbe.org/sections/cert_exam_prep.php

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http://www.sbe.org/sections/cert_index.php

Auction Numbers

>>> by Tom Smith

On October 1, the FCC released information on the possible amounts that TV broadcasters could get for giving up their spectrum in the Incentive Auction. The FCC released an information packet (<http://wireless.fcc.gov/incentiveauctions/learn-program/docs/ia-opportunities-book.pdf>) by the investment firm Greenhill and Co. The packet explained the Incentive Auction process and gave possible high and medium amounts that a station could receive in each of the 210 markets. The high and medium amounts were different for full-power and low-power stations, with the low-power station receiving less due to their small coverage areas.

The highest amount was for a full-power station in Los Angeles at \$570 million, with a medium of \$340 million. There were a few, very small markets where the amount listed was zero. In many markets, the amount suggested looked to be less than the possible value of a station as an ongoing business. The amounts given may not be near what is offered to an individual station as a number of factors will be used in determining the starting amount for each station participating in the auction.

The factors in determining the opening amount a station would be offered includes the population that the station covers, the number and population of stations that could be prevented from being repacked by that station remaining on air, the amount of interference that a station may cause to other stations, the scarcity of spectrum in the market it operates in, and the ratio of stations to channels the FCC desires for possible broadband use. The results of the auction will also reduce the amount that a station receives, as the function of the reverse auction is to see how little a station will take to give up its spectrum.

The base amount of money that

could be available for reimbursement to stations is based on freeing 126 MHz, which would leave 100 MHz available for auction for wireless broadband. The FCC is valuing the spectrum at \$1.50 per MHz per pop or person in the U.S. for a total of \$45 billion. After subtracting \$7 billion for expenses, that would leave up to \$38 billion to reimburse stations for clearing the spectrum. The expenses include \$5 billion for First Net first responder systems, \$1.75 billion for repacking costs and \$250 million for conducting the auction. The FCC also posted a chart (<http://wireless.fcc.gov/incentiveauctions/learn-program/docs/compensation-charts.pdf>) giving the possible amounts per market and an explanation of the way the amounts were computed separate from the full packet of information.

The FCC sent out the information packet to all station owners with a letter (<http://wireless.fcc.gov/incentiveauctions/learn-program/docs/greenhill-dear-broadcaster-letter.pdf>) from FCC Chairman Thomas Wheeler. There was also a letter (<http://wireless.fcc.gov/incentiveauctions/learn-program/docs/irs-letter.pdf>) from the IRS outlining the tax implications for those receiving payment from participating in the auction and for those receiving reimbursement for making channel changes due to repacking.

>>> **FORMS** continued from page 4

For cable and satellite providers, the cost of new receivers, antennas, line and their installation is covered, as well as engineering costs. Comments on the reimbursement form are due on October 27.

The notice can be found at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0925/DA-14-1395A1.pdf), the sample application at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0925/DA-14-1395A2.pdf) and the instructions at (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0925/DA-14-1395A3.pdf).



Member News

Congratulations to:

- Chapter Chair Kevin Trueblood, CBNT, and SBE Chapter 24, recognized by the National SBE for our chapter meeting a minimum standard of performance, by providing local members with educational opportunities and a chance to interact with peers. It's a good time to recognize Steve Paugh, CPBE, CBNT, as Program Chair in appreciation for the high-quality monthly programs made available to us.
- Tom Smith, CPBE, Chapter 24 Frequency Coordinator and consistent writer for our Chapter 24 newsletter, now has an article in the October issue of the SBE's *The Signal*. The title of Tom's article is "A Look at TV Repack Scenarios, Part 1."



SBE Bookstore

Browse books by title at:
http://www.sbe.org/sections/store_books_listings.php



<http://www.sbe.org/sections/SBEUniversity.php>

Thanks to Leonard Charles for maintaining the Chapter 24 web site and to Steve Paugh for mailing the meeting reminder postcards.

November 2014 Chapter 24
Newsletter Deadline:
Monday, November 3, midnight
paul.stoffel@wpt.org
edited using Adobe InDesign 2014



CHAPTER 24 SUSTAINING MEMBERS

***Thanks to all our
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WISC-TV 3

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SBE Certification

Exam Dates	Location	Application Deadline
October 12, 2014	AES convention Los Angeles, Calif. Room 407 2PM	CLOSED
November 7-17, 2014	Local Chapters	October 8, 2014
February 6-16, 2015	Local Chapters	December 31, 2014
April 14, 2015	Exams at the NAB Show	March 20, 2015
June 5-15, 2015	Local Chapters	April 10, 2015
August 7-17, 2015	Local Chapters	June 5, 2015
November 6-16, 2015	Local Chapters	October 2, 2015

For any radio or television stations, or anyone considering Certified Radio Operator (CRO) or Certified Television Operator (CTO) certification, following are some answers to questions that arose recently in Chapter 24.

This level of exam would not necessarily require proctoring by the chapter certification chair. Proctors must be approved by the National Office, typically through the local certification chair. Typically, the SBE likes to see proctors certified at or above the level of the exam given. However, another responsible person can proctor operator exams. And, for exam sessions of over three examinees, more than one proctor is needed.

The CRO or CTO study booklet and exam can be ordered by a non-SBE member. The operator exams don't require a non-member fee. So, an individual would have to apply for and pay for the membership separately, if desired.

After purchase of the CRO or CTO study guide and exam booklet, the individual has one year to take the exam.

Typically, some sort of written certificate or confirmation is issued. CRO and CTO certifications are valid for five years. No re-certification points are needed, however at the end of five years a statement of satisfactory service from a supervisor and fee of \$43 is needed, or the applicant can apply for a higher certification level.