



February 2016

Society of Broadcast Engineers Chapter 24 Newsletter Madison, Wisconsin

Next Meeting

Wednesday, February 24 Ebullient Cooling Systems



Mike Major, Operations Manager for Ebullient, LLC will explain their liquid-based cooling system for high density computer systems. This technique uses a non-conductive medium for cooling that is not harmful to electronics and may have applications for broadcast equipment.

A working demonstration rack will be shown for your inspection.

Dutch Treat Dinner 5:30 PM Come Back Inn 508 E. Wilson Street Madison, WI

Meeting and Program at 7:00PM Ebullient Offices 100 S. Baldwin Street (park along side of building; enter the side door) Madison, WI

-- maps on page 7 --

Coming Up

- Thur., Mar. 24 Loudspeaker Tasting Party & Nominations
Tues., April 12 Remembering the Hi-Fi Fad & Elections
Wed., May 25 NAB Wrap-Up

Comments Sought on AM's Future

>>> by Tom Smith

The FCC has opened the comment period on proposed rules that they hope will help AM stations survive as part of the future of communications. Comments will be due on March 21, with replies due on April 18. The comment period started with the publication of the rulemaking notice...

The proposed rules that they are seeking comment on include changes in signal contour protection for Class A (Clear Channel) stations which would limit nighttime skywave coverage to their groundwave nighttime coverage. The FCC also proposed changes to coverage contours to all other classes of AM stations which would roll back to the pre-1991 coverage contour protections.

They are also proposing changes to cross service FM fill-in translator siting rules and modifying partial performance measurements and moment of methods rules. They are also proposing to require expanded band stations (1610-1700 KHz), that still hold their old licenses in the standard band, to surrender one of their licenses, as the expanded band station was to originally be a replacement for standard band station.

There is also a Notice of Inquiry in which the FCC seeks comment of further development of the expanded band and the loosening of the studio location rules for AM stations. The full report and order can be found on the FCC website at (https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-142A1_Rcd.pdf).

FCC Wants To Expand EAS

>>> by Tom Smith

On January 28th, the FCC adopted a Notice of Proposed Rulemaking (http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0129/FCC-16-5A1.pdf) the expansion of the Emergency Alert System. The notice covers an overview of the EAS system and asks if the current relay chain of stations is adequate or if changes are needed. The relationship of state EAS plans to provide the coverage and reliability to get warnings to the public is discussed at length.

As part of the proposals concerning the state plans, the FCC is suggesting that each state file their plan electronically using a predetermined form. By requiring specific data, it would force state plans to provide similar information which allows the FCC to compare each state against the other, but could also make states follow a uniform plan regardless of each states' individual differences.

There were also proposed changes in tests of the EAS, including allowing more tests using the live or real warning headers with sufficient announcements that it is a test only. They are also proposing the use of actual EAS tones in PSA's promoting and explaining EAS.

There is a long section on EAS on >>> EAS continued on page 4

In this Issue

- Meeting Minutes..... 2
Amateur Radio News..... 3
On-Line Public Files..... 4
Certification Information..... 5
Notice of Elections..... 6



Chapter Contacts

Chair

Kevin Ruppert, CPBE, CBNT
WISC-TV
W: 608-271-4321
kruppert@wisctv.com

Vice-Chair

Richard Wood
Resonant Results
W: 608-839-3950
rwoodsky@frontier.net

Secretary

Pete Deets, CBT
WMTV
W: 608-274-1515
mldeets@nbc15.com

Treasurer & Webmaster

Leonard Charles, CPBE
WISC-TV
608-271-4321
lcharles@wisctv.com

Past Chair

Kevin Trueblood

Committee Appointees

Program Committee

Steve Paugh, CPBE, CBNT
608-277-5139
spaugh@sbe.org
*Volunteer for the
program committee!*

Membership / Newsletter Editor

Paul Stoffel, CPBE
608-263-2175
paul.stoffel@wpt.org

Sustaining Membership

Fred Sperry, CPBE
608-264-9806
fred.sperry@ecb.org

Certification & Education

Jim Hermanson, CPBE, CBNT
services@jimhermanson.com

Frequency Coordination

Tom Smith, CPBE
608-837-2729
tcsmith100@frontier.com



Meeting Minutes

from the January 2016 Business Meeting

The monthly meeting of Chapter 24 of the Society of Broadcast Engineers was held Tuesday, January 19th, 2016, at Token Creek Mobile Television in Waunakee, WI.

There were 12 members and 8 guests present.

Chair Kevin Ruppert called the meeting to order at 7:01 PM.

There was no secretary's report. A motion to approve the minutes as published in the newsletter was approved.

Treasurer Leonard Charles was not present, but his report stated that there was no activity in the chapter checkbook since October 2015. The chapter's bank balance is in the black.

There was no membership or newsletter report.

Recent sustaining membership renewals: Heartland Video, WISC-TV, WKOW-TV, Clark Wire and Cable, and Sound Devices. There are 16 total sustaining members.

Program Committee Chair Steve Paugh reported that the next program on Wednesday, February 24th will be by Ebullient, LLC of Madison, showing liquid non-conducting cooling for electronics. The March 24th meeting will be a "loudspeaker tasting party" at Full Compass Systems.

Certification Chair Jim Hermanson reported that there is one recertification in progress. The next exam session will be in February. Exams at NAB have a registration deadline of March 15. The next local exam session will be in June.

Frequency Coordination Chair Tom Smith had nothing to report. He said there was low activity in 2015.

National Liaison report: SBE will have a 1 hour webinar on new FAA tower light regulations on January 20th. The national office has sent out a member survey on mentoring new broadcast engineers.

There was no old business.

In new business, officer elections are coming up. Three positions already have candidates. Kevin Ruppert will be running again for Chair, Richard Wood for Vice Chair, and Leonard Charles for Treasurer. Nominations will be held at the February meeting.

Professional announcements:

WBUW-TV's Bill Hamilton has accepted a position at WSMV, the NBC affiliate in Nashville.

WMTV has begun site work for their new building.

The meeting was adjourned at 7:10 PM.

Respectfully submitted,
Tom Weeden (*acting Secretary*)



Heartland Video Systems

Heartland Video Systems, Inc.

1442 Pilgrim Road
Plymouth, WI 53073
Tel (800) 332-7088
(920) 893-4204
Fax (920) 893-3106
mbart@hvs-inc.com
www.hvs-inc.com
www.hvs-dtv.com

Mark Bartolotta

DIGITAL SOLUTIONS
Broadcast/Professional

SOUND DEVICES

Portable, Professional Audio

Sound Devices, LLC
E7556 State Rd. 23/33
P.O. Box 576
Reedsburg, Wisconsin 53959
www.sounddevices.com
Phone: (608) 524-0625
Fax: (608) 524-0655



Amateur Radio News

compiled by Tom Weeden, WJ9H

- The list of cosponsors for the US House version of the Amateur Radio Parity Act of 2015 (H.R. 1301) continues to grow. H.R. 1301 would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land-use restrictions, such as deed covenants, conditions, and restrictions. An identical US Senate measure, S. 1685, has attracted three cosponsors. It cleared the Senate Committee on Commerce, Science, and Transportation last November. The addition of Rep Stevan Pearce, KG5KIQ (R-NM), and Rep Beto O'Rourke (D-TX) as cosponsors on February 1 raises the total to 120 from both sides of the aisle.

- A package of two satellites carrying Amateur Radio payloads has been deployed into orbit from the International Space Station (ISS) as part of a collaborative research effort by Texas A&M and the University of Texas at Austin. Built by Texas A&M students, AggieSat4 (AGS4) will release UT's Bevo-2 CubeSat in about a month, once it is far enough away from the ISS. Both schools received support from NASA's Johnson Spaceflight Center (JSC) for the design, construction, testing, and launch phases.

The goal of the overarching LONESTAR (Low Earth Orbiting Navigation Experiment for Spacecraft Testing Autonomous Rendezvous and Docking) program is for the two satellites to individually rendezvous with each other and perform docking and undocking maneuvers.

The AggieSat team received its first beacon signal from the satellite at its Texas A&M Riverside Campus ground station. The AggieSat4 team is asking any Amateur Radio operators receiving the beacon signal to send any data to the AGS4 team. AggieSat4 will transmit 9.6 kbps FSK telemetry and 153.6 kbps FSK on 436.250 MHz. Once it's placed into its own orbit, Bevo-2 will transmit on 437.325 on CW and 38.4 kbps FSK.

Both satellites were launched to the ISS during a December resupply mission. Astronauts Tim Peake, KG5BVI, and Scott Kelly handled preparations to deploy the sizable LONESTAR 2 mission satellite package.

- Flint, Michigan, is not the only community with water problems due to high lead content. During the week of January 18, some 8100 water customers in Sebring, Ohio, were notified that they, too, had problems with high lead content in their drinking water. On January 22, both the Ohio and Mahoning County emergency management agencies began giving out bottled water in Sebring. Mahoning County Amateur Radio Emergency Service (ARES) Emergency Coordinator Wes Boyd, W8IZC, activated ARES to assist.

Boyd said, "EMA and Red Cross were overjoyed that radio operators came to work not needing a radio." ARES volunteers joined others in moving and distributing pallets of bottled water, and another call went for weekend duty. ARES members from neighboring counties volunteered. All told, the volunteers moved more than 166 pallets of water in 6 days.

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



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



Christopher Anella
6633 W. Howard St.
Niles, Illinois 60714-3305
Phone: 847-588-3800
800-323-5925
Fax: 847-588-3300
800-446-8366
Cell: 847-501-1584
chrisa@josephelectronics.com

Broadcasters One Stop Shopping
Connecting Quality. Experience and Value
www.josephelectronics.com



5727 Tokay Boulevard
Madison, Wisconsin 53719
(608) 274-1234
Fax: (608) 274-9514



7847 BIG SKY DRIVE
MADISON, WISCONSIN 53719
(608) 833-0047 • FAX (608) 833-5055



615 Forward Drive
Madison, WI 53711
608-274-1515
www.nbc15.com



Shane Collins
Clark Wire & Cable Sales
Unit A
408 Washington Blvd
Mundelein, IL 60060-4401
(800) CABLE-IT
(847) 949-9944
Fax: (847) 949-9595
e-mail: sales@clarkwire.com
www.clarkwire.com



BROADCAST SYSTEMS GROUP

Bryan Nelson
System Sales Executive
7690 Golden Triangle Drive
Eden Prairie, MN 55344
Direct: 952.841.3304
Mobile: 612.819.7215
twitter: @alphavideoaudio
facebook.com/alphavideo
bryan.nelson@alphavideo.com
www.alphavideo.com



John C. Purvey
BAV Specialist
Broadcast & AV Solutions
john.purvey@belden.com
PHONE: 815.441.5298
447 Hampshire Lane
Crystal Lake, IL 60014
www.belden.com

More Online Public Files

>>> by Tom Smith

On January 28, the FCC adopted rules (http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0129/FCC-16-4A1.pdf) that expanded the requirements for online posting of public files on the FCC website to radio stations, as well as satellite and cable providers. TV stations are currently required to post their public files to the FCC website and these rules expand the requirement to the other media services.

The transition to the posting of public files by radio, satellite and cable will follow a path similar to TV, with radio stations in the top 50 markets with more than five employees to post their files first, along with the satellite providers and cable systems with more than 5,000 subscribers. The date the requirement goes in effect is March 1, 2016. The rest of the radio stations and cable systems with 1,000 to 5,000 subscribers will have two years after the initial deadline for the larger radio and cable entities. Cable systems with less than 1000 subscribers will be exempt because of their limited public file requirements.

Data the FCC already has, such as that from the FCC database, applications and ownership reports, will not have to be uploaded, but programming reports and political files will have to be uploaded. The FCC will only require political files after the requirement goes into effect to be uploaded. Stations will be required to keep a back-up public file as they always have at their studio, either on paper or electronically or on their website, should the FCC website be unavailable.

The effects of these rules on smaller radio stations and cable systems may be burdensome as there may not be the staff to do the scanning and uploading of the files. And in some small markets, there may not be the Internet connectivity for efficient uploading of data. There may be petitions to modify the rules to exempt some very small and very rural stations and cable systems.

>>> EAS continued from page 1

cable systems and new technology. The questions concerning cable is what methods should be used for airing the EAS messages including overriding all channels and should broadcast stations be exempt from being overridden with all other channels. With new cable technologies such as IP, the Commission asks what methods should be used to pass any EAS message to the viewer.

There were questions about extending EAS to streaming video services and to tablets connected to the Internet. Security was addressed in response to a number of false alerts, including the infamous Zombie alert and a number of radio gag segments. Proposals include requiring a number of steps to be taken by EAS participants, such as changing passwords from the generic password sent be the manufacturer, using a firewall, and certifying to the FCC once a year that security steps were taken. There were also proposals to make both the network for IPAWS and the over-the-air chain more secure with authentication codes.

These proposals, if fully adopted, would make major changes to the EAS system and possibly be costly for all involved.



March 2016 Chapter 24 Newsletter Deadline: Thursday, March 3, midnight paul.stoffel@wpt.org edited using Adobe InDesign CC

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

Advertisement for IROSS Live Production Technology. Includes contact info for Brian Stumpf, Regional Sales Manager - Midwest USA. Address: 1266 Gils Way, Cross Plains, WI USA 53528-8837. Tel: (608)798-9578, Cell: (608)345-2544, Fax: (608)798-9577. Email: bstumpf@rossvideo.com, www.rossvideo.com

Advertisement for AVI Systems. Includes contact info for Tom Sibenaller, Systems Sales Specialist. Address: 5201 Femrite Drive, Madison, WI 53718. Phone: 608.221.8888, Fax: 608.221.9252, Email: tom.sibenaller@avisystems.com, Website: www.avisystems.com

Advertisement for Gepco International, Inc. Includes contact info for Matt Hayes, Inside Sales. Address: 114 South Greenwood Avenue, Palatine, IL 60074. Tel: 1-630-496-0486, Email: mhayes@generalcable.com, Website: www.Gepco.com

Advertisement for Full Compass. Includes contact info for Kevin Peckham, Product Manager. Address: 8001 Terrace Ave., Middleton, WI 53562. Phone: 608.831.7330, Fax: 608.831.6330, Order Line: 800.356.5844, Email: peckham@fullcompass.com, Website: fullcompass.com

Advertisement for Token Creek Mobile Television. Includes contact info for John Salzwedel, President. Address: 501 Moravian Valley Road, Waunakee, Wisconsin 53597. Phone: (608) 849-4965, Fax: (608) 849-4035, Cell: (608) 235-9632, Website: www.tokencreek.com, Email: john@tokencreek.com

Advertisement for Antenna System Specialist. Includes contact info for Richard Wood. Website: www.ResonantResults.com, Phone: (608)839-3950

Advertisement for WISC-TV Madison CBS 5

Certification News

SBE Certification Exam Scheduling Information for 2016.

<u>Exam Dates</u>	<u>Location</u>	<u>Application Deadline</u>
April 19, 2016	NAB Convention Las Vegas, NV	March 18, 2016
June 3-13, 2016	Local Chapters (Madison, WI Area)	April 15, 2016
August 5-15, 2016	Local Chapters (Madison, WI Area)	June 3, 2016
November 4-20, 2016	Local Chapters (Madison, WI Area)	September 30, 2016

Recertification

SBE Certification is valid for a period of five years. Applications for recertification will be accepted six (6) months prior to the expiration date on your certificate. All materials and fees must first be sent to SBE National. Please see sbe.org for fillable forms for each certification and more information. Certification can be renewed the following ways:

- **Recertification for Certified Radio Operator (CRO) and Certified Television Operator (CTO):**

At the end of the five (5) year period, the Radio and Television Operator certifications can be renewed by meeting the service requirement as verified by your supervisor, or you may upgrade your certification to a higher level by passing an examination and meeting the appropriate service requirements.

- **Recertification for Certified Broadcast Technologist (CBT):** At the end of the five (5) year period, the Broadcast Technologist certification can be renewed by meeting the service requirement of continuous employment in broadcast or broadcast related industry for three (3) of the past five (5) years preceding the renewal application, or you may upgrade your certification to a higher level by passing an examination and meeting the appropriate service requirements.

- **Recertification for Certified Broadcast Networking Technologist (CBNT), Certified Audio Engineer (CEA), Certified Video Engineer (CEV), Certified Broadcast Radio Engineer (CBRE), Certified Broadcast Television Engineer (CBTE), Certified Broadcast Networking Engineer (CBNE), Certified Senior Radio Engineer (CSRE), Certified Senior Television Engineer (CSTE) and Certified Professional Broadcast Engineer (CPBE):** The continuing education of broadcast engineers is necessary to remain current with state-of-the-art technology. To ensure that each Certified Broadcast Engineer maintains technical competence, he or she must participate in the **Maintenance of Certification Program**. He or she may do this by accumulating the required professional credits every five (5) years or by examination.

- **Recertification for Certified 8-VSB Specialist (8-VSB), Certified AM Directional Specialist (AMD) and Certified Digital Radio Broadcast Specialist (DRB):** Specialist Certifications are renewable with their host certifications for a modest fee. When applying for recertification of the host certification, simply indicate your desire to recertify your specialist certification and include the additional fee; no other action is required.



CHAPTER 24 SUSTAINING MEMBERS

Recent Renewals:

Clark Wire and Cable

Thanks to all our Sustaining Members:

AVI Systems

Alpha Video

Belden, Inc.

Full Compass Systems

GEPSCO International, Inc.

Heartland Video Systems

Joseph Electronics

Resonant Results, Ltd.

Ross Video

Sound Devices, LLC

Token Creek Productions

WISC-TV 3

WMTV-TV 15

WKOW-TV 27

WMSN-TV 47

© 2016 by SBE Chapter 24, Inc. Views expressed herein do not necessarily reflect the official positions of the Society, its officers, or its members. SBE Chapter 24, Inc. regrets, but is not liable for, any omissions or errors. The Chapter 24 Newsletter is published twelve times per year. Other SBE Chapters are permitted to use excerpts if attributed to the original author, sources, and SBE Chapter 24.

Notice of Elections

By Steve Paugh, Nominations Chair

In April we will hold elections for Chapter 24 offices of Chair, Vice-Chair, Secretary and Treasurer for the 2016-2017 terms. All interested members of Chapter 24 who are current in their dues are eligible to run for elected office. The nominations committee has accepted the following members for nomination. Our current slate of officers for the 2016-2017 term is:

Chair-	Kevin Ruppert	has accepted the nomination
Vice Chair-	Rich Wood	has accepted the nomination
Treasurer-	Leonard Charles	has accepted the nomination
Secretary-	term limit reached	open for nominations

Call For Nominations

During the February 24 meeting, the nominations committee will solicit the members present for additional nominations. If you would like to run for an office, or know someone who wishes to run, please bring it to the attention of the nominations committee. All nominees are requested to submit a short biography for publishing with the ballot. The nominations committee consists of Steve Paugh (Chair), Mike Kulis and Leonard Charles.

Appointed Officers

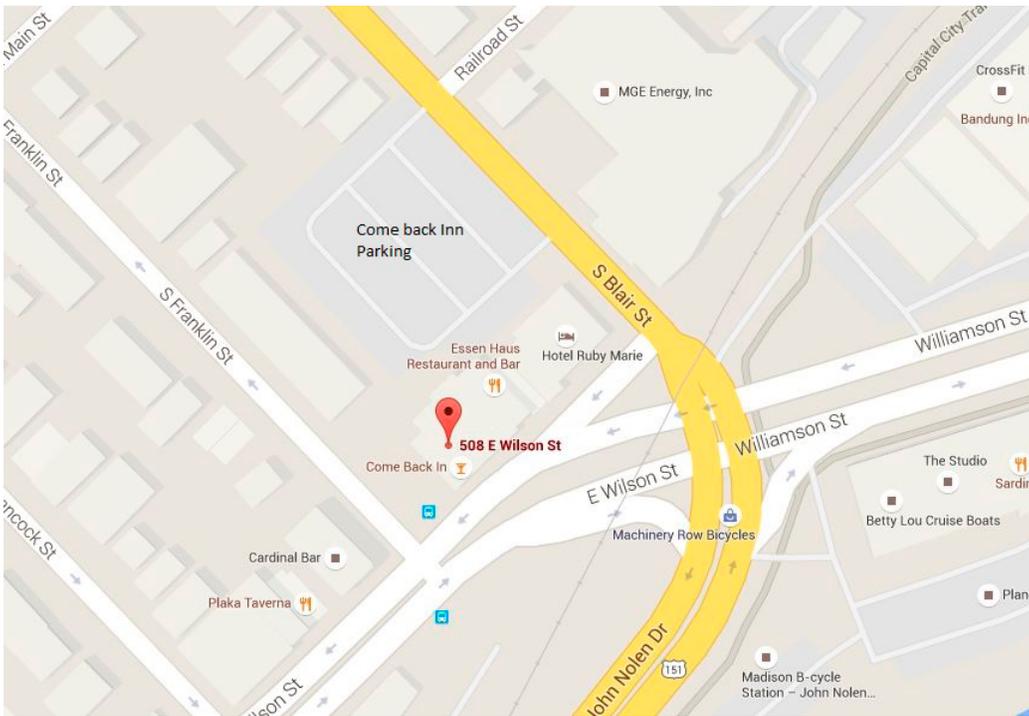
The appointed offices do not fall under the jurisdiction of the nominations committee and are appointed by the Chair of Chapter 24. Traditionally, the existing appointed officers continue for another term automatically. If you are a current appointed officer and would like to step down, please contact the current Chair Kevin Ruppert. If you would like to serve as an appointed officer please make your desire known to the Chair.

The current appointed offices are Program Committee Chair- Steve Paugh, we have two vacancies on the Program Committee, Newsletter Editor- Paul Stoffel, Membership- Paul Stoffel, Sustaining Membership- Fred Sperry, Certification and Education- Jim Hermanson, Frequency Coordination- Tom Smith, Webmaster- Leonard Charles and National Liaison- Leonard Charles.

Ballots

All balloting will be done on-line using the link provided on the www.sbe24.org chapter web site. You will need your membership ID when you sign in to cast your ballot for authentication. The deadline for nominations and the submission of biographies will be March 30, 2016.

February Dinner Location: Come Back Inn (next to the Essen Haus)



February Meeting Location: Ebullient Cooling Systems

