

June 2016

Society of Broadcast Engineers Chapter 24 Newsletter Madison, Wisconsin

Next Meeting

Thursday, June 16

ANNUAL CHAPTER 24 FAMILY PICNIC

The Chapter will supply burgers and brats, assorted soda, condiments, buns, plates, cups and utensils.



The grill will be started at 5:00 PM. Bring a dish to pass, an alternate entrée if desired and your preferred beverage (we have an alcohol permit).

Please sign-up on the chapter web site (<http://www.sbe24.org>)

There is a playground for the kids and we have an amplified music permit for the evening's music provided by Kevin Ruppert of Trailing Edge Entertainment. Come for the food and company, stay for the relaxing atmosphere!

5:00 PM - 9:00 PM

Badger Prairie Park, Shelter #1
Verona, Wisconsin

No Park Admission is required.

Map on page 6. There will be a brief business meeting about 7 PM to introduce our newly elected officers.

Visitors & guests are welcome at all Chapter 24 events!

Coming Up

Tues., July 19 WVMO LPFM
Studio Tour

Wed., Aug. 24 Remembering the
Hi-Fi Fad

Thur., Sept. 22 Bob Orban on Audio
Processing

Incentive Auction Has Begun

>>> by Tom Smith

The first part of the Incentive Auction began as scheduled on Tuesday, May 31. This part of the auction is the reverse auction where the FCC is placing offers for TV broadcasters to give up their spectrum. The reverse auction will consist of as many rounds as needed to get down to the required number of participating broadcasters that the FCC needs to clear the desired amount of spectrum. In each round, the FCC will reduce the amount of the offer with the intent to eliminate some stations unwilling to take the new lesser offer until they get down to the number of stations that will accept the FCC's offer and provide the spectrum that needs to be cleared. In order for the reverse auction to work and decrease the cost of recovered spectrum, the FCC needed many more stations to participate than they actually needed to clear the spectrum. The government needs to pay as little as possible to allow for the costs of repacking the UHF TV band and hopefully return some money to the US Treasury after they collect the proceeds for the forward auction where the wireless providers purchase the newly recovered spectrum. The forward auction will start after the reverse auction is completed and the FCC determines the amount of spectrum available for wireless use. The forward auction will be a traditional auction with the highest bid winning.

The first round on May 31 lasted six hours and ran from 10 AM to 4 PM Eastern Time. On June 1, the second round lasted four hours and ran from 10 AM to 2 PM. Starting on June 2, the FCC started two rounds a day each lasting two hours and the FCC will continue with

Auction >>> continued on page 5

New Public File Rules Proposed

>>> by Tom Smith

On May 25, the FCC issued a Notice of Proposed Rulemaking (http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0525/FCC-16-62A1.pdf) concerning the public files for TV and radio stations and cable systems. In this notice the FCC is proposing that TV and radio stations would no longer be required to place in their public file, letters and e-mails from viewers and listeners. Currently, letters and copies of e-mails are the

>>> **Rules** continued on page 5

The Summer Workshop

>>> Leonard Charles

The WBA-SBE Summer Engineering Workshop is going live on June 22 at the beautiful Radisson on the Mississippi River in downtown La Crosse. See the complete session agenda for the day published in this newsletter on page 7.

In addition to the day's sessions you can join your fellow broadcasters for the Exhibit Reception (with tons of door prizes), the Young Professionals Brewery Tour, and the evening dinner before calling it a night. Please go to the SBE Chapter 24 website (<http://www.sbe24.org>) for front page links to the hotel and WBA on-line registration. See you there!



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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

Mike Norton, CSTE, CBNE
ECB
W: 608-264-9807
mnorton@ecb.org

Treasurer & Webmaster

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

Committee Appointees

Program Committee

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

Membership / Newsletter Editor

Paul Stoffel, CPBE
608-263-2175
pgstoffel@gmail.com

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 May 2016 Business Meeting

Chapter 24 of the Society of Broadcast Engineers held their monthly meeting on Wednesday, May 25, 2016, in the studio at WMTV/Madison. There were 13 members present, 10 who were certified, and 3 guests.

Chapter Chair Kevin Ruppert called the meeting to order at 6:59pm. He had the attendees quickly introduce themselves, then proceeded with the meeting. There were no updates or changes to the last meeting minutes as published in the May *Newsletter*, so a motion was made and they were approved.

Membership Chair Paul Stoffel sent a membership report indicating that at last count the Chapter had 56 members, with 32 of them holding SBE Certification. For the Newsletter Editor report, Paul sent information that the deadline for the June *Newsletter* would be June 3 at midnight. Paul also noted that Chapter 24 is looking for a new *Newsletter* editor; training will be provided for the transition.

In a forwarded report, Fred Sperry noted that Chapter 24 continued to have 16 companies which are sustaining members, and that there were no recent renewals. There was no current treasurer report.

Program committee chair Steve Paugh announced some upcoming meeting topics. Next month the Chapter will hold the annual SBE Summer Picnic on Thursday June 16 at Badger Prairie Park in Verona. On Tuesday, July 19 the program will be a tour of WVMO-LP/Monona, and the August 24 meeting will be at Full Compass to 'Remember The Hi-Fi Fad.'

Certification Chair Jim Hermanson reported that the next chance to sit for a local certification exam is August 5 – 15, with June 3 as the deadline to send the application to the SBE National office. Another local exam window will open November 4 – 20. Jim also congratulated Tom Weeden on his recent CPBE recertification.

Frequency Coordinator Tom Smith had no new information to report. There was no national report, and no old or new business was brought before the members.

As a professional announcement it was noted that Paul Stoffel would be retiring in June, after 36 years working for Wisconsin Public Television and WHA-TV. Another announcement was made that Token Creek was looking to add a broadcast engineer to their mobile television operation.

In general announcements, attendees were reminded that the annual SBE Membership Drive ends on May 31. Also, there is an upcoming SBE webinar about HD Diversity Delay on June 1, which is available free to SBE members.

The meeting was adjourned at 7:08pm. Kevin Ruppert and others presented some photos and talked about highlights from the NAB Show. There was a brief pause during the presentation in the studio, as a WMTV meteorologist did a weather cut-in to update viewers on severe weather in the area. Following the NAB wrap-up, everyone put on hard hats as chief engineer Tom Weeden gave a walk-through tour of the new WMTV building, being constructed adjacent to the existing facility.

Submitted by Mike Norton, Secretary



Amateur Radio News

compiled by Tom Weeden, WJ9H

- “Cascadia Rising” <<http://www.fema.gov/cascadia-rising-2016>>, the largest FEMA exercise of 2016, gets under way on June 7, and Oregon and Washington Amateur Radio emergency service organizations will be heavily involved, with a significant investment in HF (3-30 MHz) activity planned. The scenario will be an earthquake and tsunami disaster involving the entire Pacific Northwest, and the exercise will start with a blackout of all normal, regular communication systems. Amateur Radio will provide emergency/disaster alternate communication systems, and participants will include Maxim Memorial Station W1AW at American Radio Relay League headquarters in Connecticut. The

plan calls for W1AW to be active and monitoring, and possibly passing traffic, if necessary, W1AW Station Manager Joe Carcia, NJ1Q, said.

“Along with participation via Winlink and HF voice, we will use it as an opportunity to exercise the ARRL Headquarters Emergency Response Team,” according to ARRL Emergency Response Manager Mike Corey, K1IU. “This team is called up to support the ARRL Field Organization during a major disaster, when support cannot be provided during normal business hours. The last activation of the team was during hurricane Irene in 2011.”

According to FEMA, a 9.0 magnitude earthquake along the Cascadia Subduction Zone (CSZ), and

the resulting tsunami would present the most complex disaster scenario that emergency managers and public safety officials in the Pacific Northwest could face; Cascadia Rising is an exercise to address that disaster. The exercise will conclude on June 10.

Emergency operations centers (EOCs) and emergency coordination centers (ECCs) at all levels of government and in the private sector will activate to conduct simulated field response operations within their jurisdictions and with neighboring communities, state EOCs, FEMA, and major military commands. The military departments in Washington and Oregon will activate.

- The STMSat-1 satellite designed by youngsters at St Thomas More Cathedral School in Virginia, mentioned here last month, deployed on May 16 from the International Space Station (ISS). STMSat-1 was supposed to turn

itself on once its batteries were fully charged and its mechanized antennas deployed. However, since signals from the CubeSat had not been heard for 7 days, a scheduled reboot occurred early on May 24.

Students remain optimistic that their STMSat-1 CubeSat will begin transmitting a signal. Helping in the search is the Space Science Center at Morehead State University in Kentucky, which is using its 21 meter dish to scan multiple frequencies for the spacecraft’s signal.

Amateur Radio

>>> continued
on page 4



Courtesy Federal Emergency Management Agency

Amatuer Radio

>>> continued from page 4

STMSat-1 is supposed to transmit on 437.800 MHz FM and transmit slow-scan television (SSTV) pictures back to Earth.



The 21 meter dish at Morehead State University in Kentucky has been helping in the search for STMSat-1's signal.

“Morehead University picked up something within our frequency range last night,” STMSat-1 Education Manager Emily Stocker said May 25. “It may have been us; it is possible it was MinXSS.” The University of Colorado’s MinXSS deployed from the ISS at the same time as STMSat-1. Stocker said they were trying to determine if Morehead State picked up a beacon, which probably would suggest a MinXSS signal, or SSTV data, which would likely confirm a signal from STMSat-1. In addition, Japanese station JA0CAW posted a tweet reporting a signal heard on 437.800 MHz at 1225 UTC on May 25.

The school thanked students at Morehead State for staying up all night listening in the 437 MHz range. Their next step is to install SSTV software to see if they can decode a signal.

Pupils at the school built STMSat-1 during a 4-year-long project, and the satellite was launched to the ISS last December. After being placed in orbit (it is object 41476), the CubeSat initially

continued roughly in the same orbit as the ISS and of other satellites deployed on May 16, but it’s been moving away a little bit each day. The youngsters have been tracking its orbit.

NASA’s Technology Demonstration Office provided the school with a mobile “clean room” for the construction, and a ground-station antenna. The agency has been advising the school on tracking the satellite and finding its signal.



Pupils at St Thomas More Cathedral School in Arlington, Virginia, assembled STMSat-1 in a NASA-provided “clean room. (St. Thomas More Cathedral School photo)

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



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bstumpf@rossvideo.com
www.rossvideo.com

AVI

5201 Femrite Drive
Madison, WI 53718
p 608.221.8888 f 608.221.9252
w avisystems.com

Tom Sibenaller
Systems Sales Specialist
CTS, CSTE
e tom.sibenaller@avisystems.com
d 608.807.1860 c 608.386.2611

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MOBILE TELEVISION

John Salzwedel
President

501 Moravian Valley Road, Waunakee, Wisconsin 53597
Phone: (608) 849-4965 Fax: (608) 849-4035 Cell: (608) 235-9632
Web Page: www.tokencreek.com E-Mail: john@tokencreek.com

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5



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

Auction >>> continued from page 1 that schedule until they finally close the reverse auction. Each day rounds will run from 10 AM to Noon and from 3 PM to 5 PM daily. The FCC will reevaluate the bids between each round and determine if the number of stations remaining meet their needs or if they need to proceed with another round to eliminate more stations in each of the affected markets. Results of each round can be found at: (<https://auctiondata.fcc.gov/public/projects/1000>). So far, the FCC has not listed any results showing the current clearing cost which is the amount the FCC would need to pay the broadcasters to either go off the air, share a channel or move to VHF.

In another action the FCC took regarding the auction (http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0526/DA-16-584A1.pdf), they set a date when all translators and low-power TV stations that were not protected under the auction rules must be on the air in order to qualify and then apply for a displacement channel. A displacement channel is a channel that a translator or LPTV station must find if they lose the channel they are on due to it being in the new wireless band or given to a full power or Class A LPTV station. The date that all translators and LPTV stations must be in operation is the day that the FCC releases the Channel Reassignment Public Notice or the new table of allocations for all the stations that need to move for the repacking of the UHF TV band.

Rules >>> continued from page 1 only public files that TV stations must retain as paper files at the station. All other items, that are to be placed in the public file, are on the online file kept by the FCC. Radio stations will soon be required to place their public file online with the FCC. With this proposed rule, both radio and TV stations will be able to eliminate the local paper file.

In another public file action, on May 12, the FCC announced (http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0517/DA-16-536A1.pdf) the effective date that the first group of radio stations and cable and satellite providers must place their public files online. That date is June 24 of this year. All radio stations in the top 50 markets with 5 or more employees, cable systems with more than 1000 subscribers and all TV and radio satellite providers must start using the online public file website. Radio stations in markets under 50 must start using the online public files by March 18, 2018. They will be required to keep paper files until then. The FCC also set June 24 as the deadline for TV stations to start using a new online public inspection file database.



**WMTV
MADISON**
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
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Fax: (847) 949-9595
e-mail: sales@clarkwire.com
www.clarkwire.com

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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



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
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Mark Bartolotta

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847-588-3300
800-446-8366
847-501-1584

chrisa@josephelectronics.com

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Newsletter Deadline:
Sunday, July 3, midnight
paul.stoffel@wpt.org
edited using Adobe InDesign CC



5727 Tokay Boulevard
Madison, Wisconsin 53719

(608) 274-1234
Fax: (608) 274-9514

Thanks to Leonard Charles
for maintaining the Chapter 24
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reminder postcards.

Society of Broadcast Engineers



The Association for Broadcast and
Multimedia Technology Professionals



7847 BIG SKY DRIVE
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SBE Chapter 24 Certification News

2016 Exam Schedule:

<u>Exam Dates</u>	<u>Location</u>	<u>Application Deadline</u>
August 5-15, 2016	Local Chapters (Madison Area)	June 3, 2016 CLOSED
November 4-20, 2016	Local Chapters (Madison Area)	Sept. 30, 2016

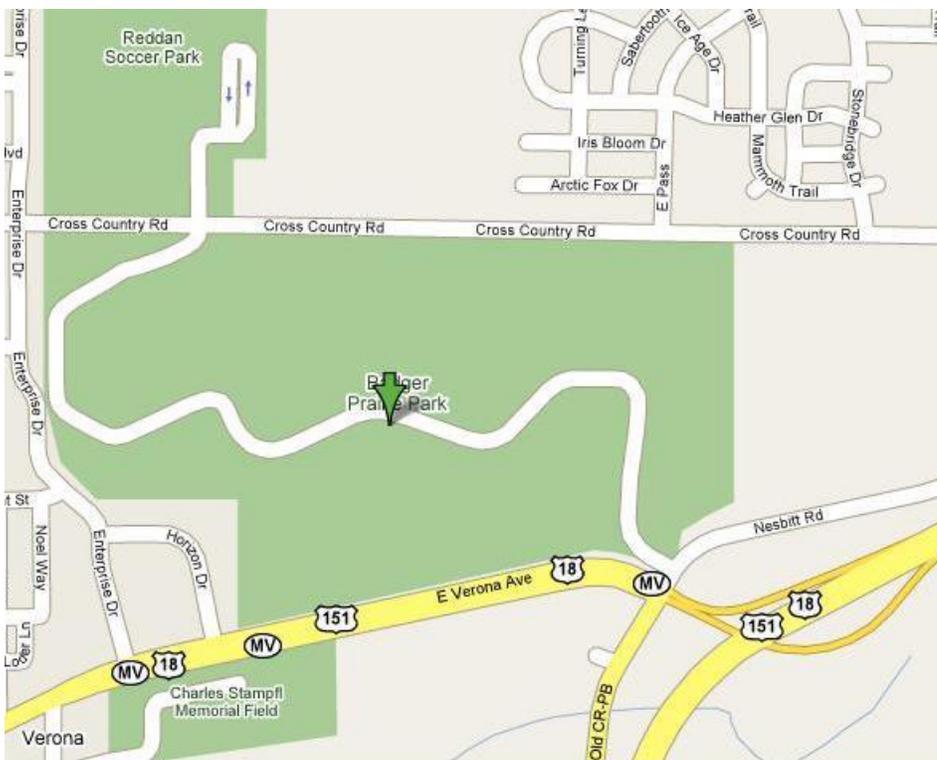
Chapter 24 Certification Achievements:

Congratulations to Tom Weeden on his Certified Professional Broadcast Engineer (CPBE) recertification.

Congratulations to Steve Paugh on his Certified Professional Broadcast Engineer (CPBE) Life Certification.



Badger Prairie Park, Shelter #1 Verona, Wisconsin



CHAPTER 24 SUSTAINING MEMBERS

Thanks to all our Sustaining Members:

- Alpha Video
- AVI Systems
- Belden, Inc.
- Clark Wire and Cable
- 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

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Wisconsin Broadcasters Association 2016 SUMMER CONFERENCE ENGINEERING DAY

The Radisson, La Crosse WI

ENGINEERING DAY - JUNE 22

8:45 AM: Risk Management in a Broadcast Enterprise

Mike Epstein, Sr. Director of Risk Management, Scripps

What are the risks in a broadcast complex and how to address them will be discussed in this session. Mike will also cover business continuity and physical security including active shooter situations.

9:30 AM: Tower Site Security and FAA Lighting Changes

Rich Wood, President, Resonant Results

Out of sight doesn't have to mean less secure. Rich will talk about ways your tower site is threatened and what you can do to make it more secure. Rich will also describe the latest FAA circular and what it means for your tower.

10:15AM: BREAK

10:30 AM:

Information Security: What Are the Hackers Up to Now?

Dave Kieper, Interim Chief Information Officer, UW Green Bay

David will describe the current motivation and methods used by the internet hacker community and discuss defense strategies to mitigate their attacks.

11:15 AM:

An Amber Alert Incident Debrief

Jennifer Price, Director, Special Operations Bureau, CART Commander, WI DOJ-DCI

Michelle DuBois, Coordinator, Wisconsin Clearinghouse for Missing & Exploited Children & Adults

Detective Donald Henning, Eau Claire County Sheriffs Office

We will dissect an actual child abduction incident that resulted in an Amber Alert in Wisconsin. What were the steps that lead up to the Alert and what process was used to determine an Alert was needed.

12:00 PM: LUNCH

1:30 PM: The Growing Impact of Ambient Noise on Broadcasting

Steve Johnston, Director of Engineering and Operations, Wisconsin Public Radio

Growing levels of unintended "noise" are interfering with reception of RF signals from radio and television stations. This presentation will discuss the problems we face, pinpoint common sources of the noise, and propose possible resolution.

2:15 PM:

Ask the Manager

In this session the audience will have a chance to ask non engineering managers questions about anything. On the panel will be:

HR Manager: Jeff VerVoort, Morgan Murphy Media

Radio Manager: Nancy Douglas, CTJ Communications

Finance Manager: Paul Rahmlow, Midwest Communications, Inc.

TV Manager: Steve Lavin, WBAY TV

3:15 PM: BREAK

3:30 PM: The Round Tables

Everyone's voice is heard in this session. We will split the audience into four subgroups and talk about four timely topics. Then we'll hear a report of each discussion. These are the topics:

Table 1: The Broadcast Sales Tax Exemption, Kevin Ruppert, Chair

Table 2: The FM Translator Buildout, Greg Dahl & Jason Mielke, Co-Chairs

Table 3: X-OIP, Clif Groth & Matt Sperling, Co-Chairs

Table 4: Working with Millennials, Kent Aschenbrenner & Bill Hubbard, Co-Chairs

4:30 PM: Exhibits and Reception