



March 2014

Society of Broadcast Engineers Chapter 24 Newsletter Madison, Wisconsin



Next Meeting

Thursday, March 13



John Calder of Minnesota-based Acoustic Geometry will give us a multimedia presentation on the general principles of acoustics, problems we can encounter in our listening environments and steps we can take to solve them.

John will demonstrate several solutions and will have examples of various treatment materials available. This discussion will be of value to both the professional audio engineer, as well as the home theater enthusiast.

We will also be taking nominations for the office of Treasurer.

Dutch Treat Dinner at 5:30pm
Rocky Rococo Pizza & Pasta
7952 Tree Lane
(Mineral Point at Beltline)
(near Brothers Main Appliance)
Madison, WI

Meeting and Program at 7:00PM
Full Compass Systems
9770 Silicon Prairie Parkway
(use main entrance)
Madison, WI

LPFM Grants Continue

>>> by Tom Smith

The FCC continues to process LPFM applications at a record pace. It has been reported that the FCC has granted over 1000 construction permits out of the 2800 applications. The FCC has also dismissed a fair number of applications and even has accepted a few applications for licenses from those holding construction permits. In the Madison area, three more applications for constructions permits have been granted. The grants were to Madison Christian Low Power FM for 103.7 MHz with the transmitter at the intersection of Broadway and Bridge Road in Monona, the First Unitarian Society of Madison at 102.9 MHz with the transmitter on the Concourse Hotel, and Portage Educational Broadcast, Inc with the transmitter east of Portage on Highway 33. Madison Christian Low Power FM is on a second adjacent channel to WZEE-FM and First Unitarian Society of Madison is on a second adjacent channel to WNWC-FM. Both required waivers to operate on their respective frequencies.

Other Wisconsin LPFM construction permits were granted to applicants from Silver Lake at 101.5 MHz, Franklin for 101.7MHz, Stevens Point for 105.9 MHz and the University of Wisconsin, La Crosse received a permit for 89.9 MHz.

The permits for Franklin and Stevens Point were for local governments. Carroll University's application for 104.5 MHz was dismissed (http://licensing.fcc.gov/cgi-bin/prod/cdbs/forms/prod/getimportletter_exh.cgi?import_letter_id=46931) due to an error in the coordinates which could not be corrected with an application for a minor change. They put down in their application the

coordinates 43-0-16 N 88-13-39 E when it should have been 43-0-16 N 88-13-39 W. The wrongly listed coordinates placed the transmitter site in northwestern China. They currently have a 13 watt class D FM station operating on 104.5 MHz and had planned to give up its license for the higher power LPFM license.

Caption Rules Updated

>>> by Tom Smith

On February 24th, the FCC released both a Report and Order and a Notice of Proposed Rulemaking (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0224/FCC-14-12A1.pdf) concerning closed captioning of television programming. The 153-page notice covers new rules requiring the captions for prerecorded programming to have accurate captions which would require all dialog, sound effects and lyrics to be captioned, including some misspeak such as most false starts and repeated words. Captioning would have to be as synchronous as possible to the words spoken, not cover visual elements such as onscreen graphics and be complete for the

>>> *Caption* continued on page 5



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Coming Up

Wed., April 16	TBD— Elections
Wed., May 14	NAB Wrap-Up
Thur., June 13	SBE Summer Picnic



Chapter Contacts

Chair

Kevin Trueblood
Wisconsin Public Radio
608-345-3248
kevin.trueblood@wpr.org

Vice Chair

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

Secretary

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

Treasurer

Matthew Glissendorf, AT&T
608-252-1227
mg4512@att.com

Past Chair

Bill Hamilton, Wisconsin Eye
608.957.2449
wlh657@gmail.com

Committee Appointees

Program Committee

Steve Paugh 277-5139
spaugh@wisctv.com
Volunteer for the
program committee!

Membership / Newsletter Editor

Paul Stoffel
paul.stoffel@wpt.org

Sustaining Membership

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

Certification & Education

Jim Hermanson
services@jimhermanson.com

Frequency Coordination

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

Webmaster

Leonard Charles
W: 608-271-4321
F: 608-271-1709
lcharles@wisctv.com



Meeting Minutes

from the February 2014 Business Meeting

At 7:00pm Wednesday, February 12th the SBE Chapter 24 meeting was called to order by Vice Chair Kevin Ruppert at Full Compass Systems in Madison. There was one sustaining member and also 13 members attending, 10 of whom are certified.

As last month's meeting was canceled due to weather there were no minutes published.

Fred Sperry e-mailed a sustaining member's report listing renewals as: Resonant Results, Ikegami Electronics, Heartland Video, WISC-TV, WKOW-TV, WMTV-TV, Clark Wire & Cable, Sarch Electronics, Sound Devices and Ross Video. We currently have 20 sustaining members.

Paul Stoffel noted the deadline for the next newsletter is March 3rd.

Certification Chair Jim Hermanson reported there will be one person so far taking an exam. The next exam session will be at NAB with a March 31st deadline for application. The following exam period will be June 6th - 16th with an April 11th deadline.

Under Frequency Coordination Tom Smith noted that the Commission is issuing construction permits to new low power FM's.

National Liaison Leonard Charles reported that for those going to NAB there will be a special SBE 50th Anniversary Membership meeting followed by a reception on Tuesday, April 8th. The meeting starts at 5:30 and the reception at 6:30 in LVCC S225 and S219. Prizes will be awarded.

Program Chair Steve Paugh reports the next meeting will be Thursday, March 13th and include a 2nd call for nominations and a program on acoustics.

The first call for nominations has been made and the incumbent Chair, Vice Chair and Secretary will stand for election. Elections will be held April 16th.

No new or old business was brought up and there were no technical announcements.

The meeting was adjourned at 7:10pm and a program was presented by Kevin Peckham and Erik Higgs of Full Compass Systems and Dan Walsh of Marshall Electronics on h.264 and video streaming.

Respectfully submitted,
M. L. Deets, Secy.



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



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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READY FOR UHF!



It takes only a minute to replace the tuner strips in the Majestic CASCOBLOC TUNER for UHF reception on WKOW-TV and WM-TV. Madison's television stations now being constructed.

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\$349⁹⁵

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>>> Newspaper ad from early 1953
 courtesy of www.facebook.com/LostMadisonWisconsin

Remember "Buy a TV, get a bike!" in the 1970's and 80's?

>>> by Stan Sarch

Well did you know in the early 1950's it was "Buy a 21-inch TV, get a fringe VHF lowband antenna!"

There are still some of those American TV antennas around Madison (and competing antennas too, with similar configuration). Pointed toward Milwaukee, to pick up WTMJ-TV (on channel 3 until July 1953, then moved to channel 4), which was the only TV station reliably received in Madison until WKOW-TV-27-CBS and WMTV-33-NBC went on the air in mid-1953. Up to the end of analog TV in 2009, some homes in Madison were still receiving WISC-TV channel 3 off the back end of a low band antenna pointed toward Milwaukee. The next time you are out in an older residential area, look at the rooftops and you may see a few. And yes, some of them are still pointed to the east.

Ikegami

James Daniels, Jr. (J.D.)
 Midwest Regional Sales Manager

IKEGAMI ELECTRONICS (U.S.A.), INC.
 16206 Hunter Court, Orland Hills, IL 60487

Tel: (708) 460-1451
 Fax: (630) 248-5185

www.ikegami.com
 E-mail: jdaniels@ikegami.com



Wisconsin Public Television
 821 University Ave.
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 Fax: (608)798-9577

bstumpf@rossvideo.com
www.rossvideo.com



Amateur Radio News

compiled by Tom Weeden, WJ9H

• Several Amateur Radio CubeSats, including Lithuania's first satellites, LituanicaSAT-1 and Litsat-1, have been deployed into orbit from the International Space Station. NASA reported that the nanosat deployments took place February 26, 27, and 28, as the onboard Expedition 38 crew prepared for the arrival of a US commercial cargo craft and the departure of three crew members. The ISS crew also released ArduSat-2, UAPSat-1, Chasqui-1, and the nonamateur 915 MHz SkyCube.

In addition to the CubeSat deployments from the ISS, seven Japanese Amateur Radio satellites launched successfully from Earth February 27. They include the ARTSAT: INVADER CubeSat (call sign JQ1ZKK) and six other Amateur Radio satellites, along with the Global Precipitation Measurement (GPM) core observatory satellite.

The other Amateur Radio satellites are OPUSat, STARS-II (comprises mother and daughter satellites), TelkyoSat-3, ITF-1, and ShindaiSat-1. The launch took place from the Yoshinobu Launch Complex at the Tanegashima Space Center. More information and frequencies for these satellites are on the AMSAT-UK website <<http://amsat-uk.org>>.

• The FCC and the manufacturer of a device that wirelessly reports propane tank levels have entered into a Consent Decree that concludes an investigation into whether the company had been marketing a noncompliant RF device. It also provides a window into how the Commission occasionally resolves certain enforcement proceedings. The EnerTrac "Big Drops System" operated as an unlicensed Part 15 intentional

radiator on 433 MHz; the manufacturer has since shifted to a licensed Part 90 frequency. According to the terms of the arrangement, EnerTrac will admit no wrongdoing, agree not to break the rules in the future, and make a "voluntary contribution" of \$13,000 to the US Treasury. In return the FCC will drop the entire matter.

As the FCC pointed out in the Consent Decree, intentional radiators must first receive FCC certification before being marketed in the US. While the Amateur Service enjoys privileges on 70 centimeters on a secondary basis, many unlicensed Part 15 devices operate in the vicinity of 433 MHz on a non-interference basis.

In July 2012, the FCC received a complaint that the Big Drops System was not operating within the terms of its authorization. The Commission issued a Letter of Inquiry to EnerTrac, which reminded the FCC that the 433 MHz Big Drops System had been tested for compliance with Part 15 rules and had been certified by the FCC. The FCC's Office of Engineering and Technology (OET) tested the system, however, and determined that it exceeded Part 15 emission limits, suggesting that there may have been differences between the unit tested for certification purposes and the version that EnerTrac marketed.

Among other stipulations, EnerTrac, in turn, agreed to pull its 433 MHz Big Drops System devices out of service by the end of 2017. The company would have to remove immediately any device that is the subject of a complaint of unlawful interference, however.

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

* LithuanicaSAT-1 carries an FM transponder (uplink 145.950 MHz/downlink 435.180 MHz) and an AX.25 packet transponder (uplink 145.850 MHz/downlink 437.550 MHz). The CW beacon is on 437.275 MHz.

* Litsat-1 carries an SSB transponder (uplink 435.180 MHz/downlink 145.950 MHz) and an AX.25 packet transponder (uplink 437.550 MHz/downlink 145.850 MHz).

* ArduSat-2 will transmit 9.6 MSK CCSDS data on a 437 MHz downlink. Its mission is to provide a platform on which the students and DIY space enthusiasts may design and run their own space-based Arduino experiments.

* UAPSAT will carry an AX.25 packet transponder (uplink 145.980 MHz/downlink 437.385 MHz). Developed by the Universidad Alas Peruanas in Peru, the satellite includes magnets to align the satellite with Earth's magnetic field.

* Chasqui-1, developed by scientists at the National University of Engineering (UNI) in Peru, will transmit AX.25 format data on 437.250 MHz.



Don Heinzen
Account Manager
Enterprise Solutions Division
Direct: 608.848.2001
don.heinzen@belden.com

9001 Hawks Reserve Lane
Unit 103
Verona, WI 53593
Cell: 608.235.7539
Fax: 608.848.2001
www.belden.com



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

FCC Proposes Reform

>>> by Tom Smith

On February 14th, the FCC issued a 92-page report (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0214/DA-14-199A2.pdf) on process reform. The paper discussed goals of reforming FCC processes to make them more efficient and transparent. The working group responsible for the paper listed six goals.

They are as follows:

- 1) Improving the efficiency and effectiveness of how the agency conducts its business
- 2) Processing items before the agency more quickly and more transparently
- 3) Streamlining agency processes and data collections
- 4) Eliminating or streamlining outdated rules
- 5) Improving interactions with external stakeholders
- 6) Improving the internal management of the agency

Most of the actions discussed in the paper include setting standard deadlines for conducting rulemakings, shortening the time it takes to process various rulings and other actions, including licensing, eliminating paper and using electronic filing of applications and communications, including FCC releases exclusively. Also proposed is standardizing data and documents to standard formats in appearance that are searchable and easy to work with by others. That would mean using common word processing and data formats that users could modify as needed. Also making all FCC forms computer compatible. As part of the upgrading of the use of electronic filings and communications, the working group proposed the upgrading of the Commissions computer systems and databases, some of which have been in use for some time, including automating the computer systems so that it is easy for the public to check on the status of their filings.

Other changes would be standardizing fees for similar filings among the different services, and asking Congress to change some data collections and reports on

various industries the FCC regulates to a longer schedule, such as every two years instead of yearly.

Besides making the rulemaking more uniform with more defined deadlines, it was proposed to allow stakeholders to participate in the rulemakings earlier in the process. This would allow groups such as industry standard committees and technical experts to offer input at an earlier stage of the rulemaking course. The Commission has used this process in the past, but would like to do it more often. An example of stakeholder involvement would be in the creation of the DTV rules with the ASTC. While allowing for more input by technical and other experts, the public's ability to provide input in some of the rulemaking processes could be limited as much of the rulemaking discussion would occur before the public comments.

There is discussion on a number of other proposed changes to the FCC, including internal operations of the FCC. Many of the proposals that the working group proposed would make dealing with the Commission easier, but if past history is an example, the number of proposals that are enacted will no doubt be less than those that were proposed. But do expect more filing of forms by the Internet, as this has been an objective with the FCC for some time.

Comments are due on March 31st. (http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0214/DA-14-199A1.pdf)

>>> **Caption** continued from page 1

whole program, which means no running over the end of the program or segment as to be cut off by the next program element such as a commercial. The rules allow for more errors in live programming and near-live programming (recorded less than 24 hours before airing).

Stations in markets under the top 25 can use captions created from their news scripts. The weather and some parts of the sports segments were exempt because they were mainly adlib due to the information needed to be updated close to airtime. The new rules will now require that they need to be scripted, but do not have to match the actual speaker word for word. Crawls and other graphic elements will be needed to convey pertinent information not in the script. There are no new penalties for issues arising from these new rules.

In the Notice of Proposed Rulemaking, comments were requested on further strengthening the current captioning rules including the newly-updated rules, reporting captioning problems and outages to the FCC and to the public, consumer complaints, eliminating the different exemptions to the rules, passing some of the burden for the broadcaster/cable provider to the program provider for some of the captioning problems. Comments for technical standards for 3D and ultra high definition were also requested.

Comment date has not been set.

	5201 Femrite Drive Madison, WI 53718 p 608.221.8888 f 608.221.9252 w avisystems.com
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	Yohay Hahamy Ext. 342 Senior Vice President/Owner
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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 2014-2015 term. We are still seeking a nominee the office of Treasurer. Our current nominations for officers are:

- Candidate for Chair- Kevin Trueblood
- Candidate for Vice Chair- Kevin Rupert
- Candidate for Treasurer- accepting Nominations
- Candidate for Secretary- Pete Deets

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 Trueblood. If you would like to serve as an appointed officer please make your desire known to the Chair.

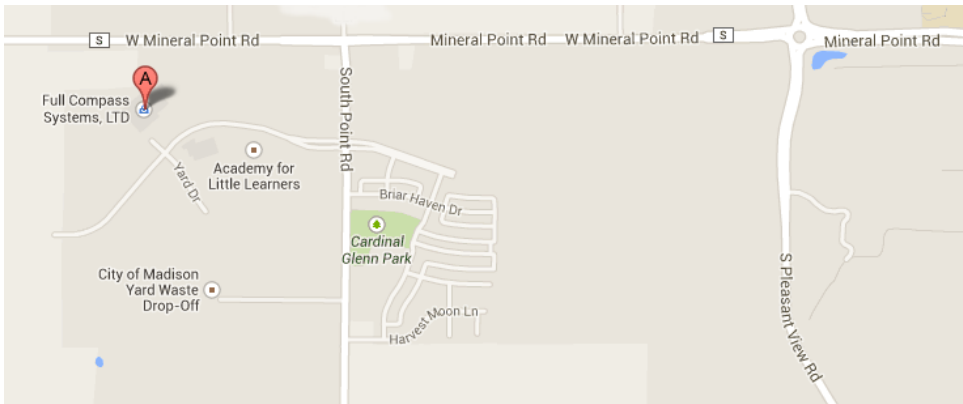
The current appointed offices are Program Committee Chair- Steve Paugh and we have two vacancies on the on the Program Committee, Newsletter Editor- Paul Stoffel, Membership Chair- Paul Stoffel, Sustaining Membership- Fred Sperry, Certification and Education- Jim Hermanson, Frequency Coordination- Tom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

Voting

Thanks to the efforts of nominations committee member Leonard Charles, we will again have on-line voting! We will also publish the election ballot in the April on-line newsletter. You can either vote on-line or print the on-line ballot and mail it in to the Nominations Chair. Ballots will also be available at the April meeting for on-site voting. The deadline for nominations and the submission of biographies will be March 28th, 2014. The nominations committee consists of Steve Paugh (Chair), Mike Kulis and Leonard Charles.



March meeting location at Full Compass Systems



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
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27 abc

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5727 Tokay Boulevard
 Madison, Wisconsin 53719

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

Spring Membership Meeting and 50th Anniversary Reception

SBE members and guests are invited to the spring **SBE Membership Meeting**, to be held on Tuesday, April 8 from 5:30 to 6:30 pm in room S-225 of the South Hall, Las Vegas Convention Center. The meeting is held in conjunction with the 2014 NAB Show. Sponsored by Vislink Broadcast, the meeting will include recognition of SBE chapter certification chairmen who have achieved milestone service years, updates on implementation of the society's strategic plan, programs and government relations efforts. Prizes will be given away, including three \$25 dinner gift cards and a \$350 gift card to Fry's Electronics.

The meeting will be followed immediately by a special **SBE 50th Anniversary Reception**, held just across the hall in Room S-219 from 6:30 to 8:30 pm. Beverages and "finger food" will be provided. Members of the SBE and guests are invited and no RSVP is required. The reception is being made possible in part, with support from Gold Sponsor - Vislink Broadcast; Silver Sponsor - Comrex, and Bronze Sponsors - AC Video Solutions, Blackmagic Design, Econco and Wide Orbit. Five \$50 bills will be given away during the reception.

SBE Bookstore

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



April 2014 Chapter 24
 Newsletter Deadline:
 Thursday, April 3
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.

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CHAPTER 24 SUSTAINING MEMBERS

Recent Renewal:

AVI Systems
 GEPCO International, Inc.
 WMTV-TV 15

Thanks to all our Sustaining Members:

Alpha Video
 Belden, Inc.
 Clark Wire and Cable
 Full Compass Systems
 Heartland Video Systems
 Ikegami Electronics (USA), Inc
 Joseph Electronics
 maney-logic
 Resonant Results, Ltd.
 Ross Video
 Sarch Electronics
 Sound Devices, LLC
 Token Creek Productions
 WISC-TV 3
 WKOW-TV 27
 WMSN-TV 47
 Wisconsin Public Television

Certification Exam Session Dates

For more information about SBE Certification, contact Jim Hermanson, Chapter 24 Certification Chair, services@jimhermanson.com or contact Megan Clappe, Certification Director at the SBE National Office at (317) 846-9000, or mclappe@sbe.org.

EXAM DATES	LOCATION	APPLICATION DEADLINE
April 8, 2014	NAB Convention	March 31, 2014
June 6-16, 2014	Local Chapters	April 11, 2014
August 8-18, 2014	Local Chapters	June 6, 2014