



April 2008



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Next Meeting

**Thursday, April 24
Nextel Schedule,
FCC DTV Update &
Elections**

Leonard Charles will cover two timely topics. First he'll go over the evolution to date of the Nextel 2Ghz Relocation project. This will include the newly proposed final schedule; what drives it and what it means to Southern Wisconsin TV stations. Then he'll go over the highlights of the FCC's 8th Report and Order on the DTV transition resulting from the Third Biennial Review. Not only does it contain the final rules for the DTV transition, but there are some new requirements for PSIP that stations need to be aware of.

During the business portion of the meeting we will collect ballots.

Dutch Treat Dinner, 5:30 p.m.

Griff's Restaurant & Frozen Custard
1233 McKenna Blvd., Madison
(no reservation; just gather together)

Meeting & Program, 7 p.m.

WISC Conference Room B
7025 Raymond Road, Madison
Park in front parking lot; enter via lobby entrance



Coming Up

- Wednesday, May 14:** Harris NET Vx
- Thursday, June 12:** SBE Summer Picnic
- Tuesday, July 15:** Loudspeakers, Part 2

Cast Your Ballot

>>>By Steve Paugh, Nominations Chair

The deadline for returning your ballot to the nomination chair is Monday, April 28, 2008. The nominations committee will count the ballots on the evening of Wednesday, April 30, 2008 at WISC-TV.

You may turn in your ballot in person during the April 24th, 2008 chapter meeting. If you are unable to attend the April meeting, you may mail your ballot directly to me at:

Steve Paugh- c/o WISC-TV
Ballot
7025 Raymond Road
Madison, WI 53719



Please indicate "Ballot" on the envelope and we will hold your ballot unopened until the official counting process. Your ballot must be in our possession before we begin the counting on April 28. Remember that your membership must be current to be eligible to vote. Your membership number must be entered on the ballot for it to be valid. Thanks to nomination committee members Mike Kulis and Leonard Charles.

Bylaws suspended

According to the Chapter 24 bylaws, the terms of office for Secretary and Treasurer are three consecutive years. At the March 19, 2008 chapter meeting, it was approved by those present to temporarily suspend the bylaws for term limits to allow Tom Smith and Leslie Frazen to run for the office of secretary and treasurer, respectively, for a fourth term due to a lack of candidates for those positions.

Next year, Chapter 24 will need a new slate of officers to run for all positions. Please consider running for one of the officer positions next year.


Chapter Contacts
Chapter Leadership*Chair*

Dennis Baldrige
W: 489-3999
baldrige@mwt.net

Vice Chair

Clifford Groth (Clear Channel Radio)
W: 274-5450
cliffordgroth@clearchannel.com

Secretary

Tom Smith (WHA-TV)
W: 263-2174
smithtc@wpt.org

Treasurer

Leslie Franzen (WMTV-TV)
W: 274-1515
lfranzen@nbc15.com

Past Chair

Jim Magee
jim@tvmagic.tv

Committee Appointees*Program Committee*

Steve Paugh	277-5139
Fred Sperry	264-9806
Steve Zimmerman	274-1234

Membership

Paul Stoffel
paul.stoffel@wpt.org

Sustaining Membership

Fred Sperry
264-9806
fsperry@ecb.state.wi.us

Certification & Education

Jim Hermanson
271-4321
jhermanson@wisctv.com

Frequency Coordination

Tom Smith
263-2174
smithtc@wpt.org

National SBE Chapter Liasion

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

**Meeting Minutes**

March 2008

Chapter 24 of the Society of Broadcast Engineers met at Educational Communications Boards Offices and Operations Center. Chairman Denis Baldrige called the meeting to order at 7 p.m. There were 16 members in attendance, of which 13 were certified. There was one guest.

Chairman Dennis Baldrige welcomed guests including SBE Executive Officer John Poray. Leonard Charles motioned that the minutes for the February meeting be accepted as published in the March newsletter. Steve Paugh seconded the motion.

Treasurer Leslie Franzen reported on the chapter's bank balance and recent activity. Frequency Coordinator Tom Smith reported there were no recent requests for frequency coordination.

Certification Chair Jim Hermanson reported that the application period for certification exams at the NAB Convention were closed and that the applications for the June exam period must be submitted by April 18.

Program Chair Steve Paugh said the April meeting was moved to April 24 and would be a report on the Nextel 2 GHz transition and a DTV update. Harris would give the May meeting on DTV encoders and IPTV, and the June meeting will be the annual chapter picnic.

Sustaining Membership Chair Fred Sperry reported that Broadcast Richardson, Entercom Madison, maney-logic, Ross Video, Sound Devices and Wisconsin Public TV had renewed their sustaining membership giving us a total of 22 sustaining members.

In new business, Chair Dennis Baldrige noted that the Taste of NAB wished to present its program in October. He suggested with the SBE National meeting coming to Madison during the Broadcasters Clinic in October, that maybe we should pass on it. A vote was taken and it was voted that we should pass on the Taste of NAB program for this year.

The chair also asked about possible availability of facilities to produce a webcast during the national meeting.

John Poray, executive director of the National SBE office, reported on the planning meeting held earlier in the day for the national meeting and awards dinner during Broadcasters Clinic on October 14-16. He also noted the actions by SBE President Barry Thomas to increase communication with the members, noting the president's e-newsletter, the SBE Roundtable discussion group on the Web and new educational efforts.

Educational efforts include at least two more RF safety webinars and planned on-demand educational programs starting with programs aimed for radio at first. John also invited all those attending the NAB to visit the SBE booth and attend the annual membership meeting.

In other business, Steve Paugh, nomination committee chair, said that Dennis Baldrige would run for another term as Chair and Clif Groth would run for Vice-Chair. He stated that no one had come forward to serve as Secretary or Treasurer and that Tom Smith and Leslie Franzen had reached the term limits for those offices. It was discussed if we could waive the terms limits and change the bylaws to increase the length of time one could serve in these two offices and match our term limits to the term limits for National officers. A motion was made by Steve Paugh to waive the term limits for Secretary and Treasurer and to amend the bylaws. The motion was seconded by Leonard Charles and approved by the members present. Tom Smith will run for another term as Secretary and Leslie Franzen will run for another term as Treasurer.

In personal and station news, Fred Sperry reported on a complaint about a DVD recorder that would not record from its DTV tuner and what they were doing to trace the problem. He did not know if other DVD recorders had similar problems, or if this model was the only one.

Respectfully submitted by
Tom Smith, Secretary

2 GHz extension

By Tom Smith

On March 5, FCC granted a waiver to Sprint, which now owns Nextel, for an addition year to complete the 2 GHz broadcast auxiliary service transition to a narrower band to allow for the Nextel service and the Mobile Satellite Service (MSS) to start operations in the freed up spectrum.

The transition must be completed by March 5, 2009. The FCC is also asking for comments on allowing MSS operators to start operations in the top 30 markets that have completed the transition by January 1, 2009. The 2 GHz transition will be one of the subjects of the April meeting.

From FCC Release (www.fcc.gov)

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ned@mwmg.com
www.mwmg.com

Brian Stumpf
Regional Sales Manager



T: 608-798-9578
C: 608-345-2544
bstumpf@rossvideo.com

www.rossvideo.com

Candidate Bios

Dennis Baldrige

Chairperson

Dennis has been working in the field of broadcasting for over 29 years. He started as a service technician for broadcast and two-way communications equipment and now is self-employed as a contract engineer for several AM & FM stations in southwest Wisconsin. He is presently certified as CPBE and CBNT with the SBE. Dennis has been a member of the SBE-24 for the past 12 years and is currently vice chair.

Dennis has a Master of Arts degree in science. He teaches science courses related to the broadcasting field. These include college electronics, algebra, advanced mathematics and physics.

Dennis's hobbies include amateur radio and music. He is a former member of the Madison Symphony Orchestra and La Crosse Orchestra and teaches music courses several times a year at the International Academy of Music in Indianapolis, Indiana.

Clifford (Clif) Groth

Vice Chair

Started in radio in 1958. Obtained First Class License in 1964, working as CE and later VP Engineering for Goetz Broadcasting while doing contract work. Became Director of Engineering for Marathon Media when they purchased the Goetz properties. Short affiliation with NRG Broadcasting. Currently CO/Engineer for Clear Channel Radio Madison. SBE member since 1965.

Tom Smith

Secretary

I am running for Secretary of Chapter 24. I previously held the positions of Chairman and Vice-Chairman and am completing a year as serving as Secretary. I have also been the Chapter 24 Frequency Coordinator since 1992. I have been a member of SBE since 1970 and am a Certified Professional Broadcast Engineer. I started as a broadcast Engineer in 1969 and have worked in TV and radio stations in Fond du Lac, Wausau and Madison. I have also done contract technical services for radio stations, video and audio facilities. I have been on the engineering staff of WHA-TV for the last 30 years where I am a maintenance technician and also do some videotape editing. I have attended numerous schools and conferences and have been involved with the Broadcasters Clinic serving on the Program Committee as well as doing audio and video for over 15 years.

I would like to remain involved in the leadership of Chapter 24, as I believe this is one of the best chapters in the country and I would like to help it remain so.

Leslie Franzen

Treasurer

My name is Leslie Franzen, and I am currently treasurer of SBE Chapter 24. I would like to continue on in this position for another year. Presently I am employed at WMTV as an Operations Technician. In my free time, I like to cook, read and write. Thanks for your support.

700 MHz auction ends

By Tom Smith

After 38 days and 261 rounds of bidding, the auction for 62 MHz of the spectrum that will become available after analog TV goes away on February 17, 2009 ended on March 18. The auction started on January 24 and raised a recorded amount for any FCC auction. The total bidding came to \$19.592 billion for four of the five frequency bands. Band D, the 10 MHz band (TV Channels 62/67) that was to be shared with public service users was withdrawn by the FCC after the lone bid by Qualcomm did not meet the reserve price that FCC set. This was to be one national license in which the winner is to build a nationwide network that would provide commercial and public safety broadband service. Commercial service would be preempted when public safety needs required the use of the band.

The big winners were the Telco giants AT&T and Verizon. Verizon bid \$9.363 billion, which included \$ 4.75 billion for the 22 MHz C block (TV Channels 60-61/65-66); AT&T bid \$6.636 billion for a large portion of the B block (TV Channels 53/58). Verizon also won some of the B block licenses. Frontier Wireless, owned by satellite provider Echostar, outbid Qualcomm for most of block E, which is TV Channel 56. Qualcomm won some of the remaining block E licenses. It is expected that both Frontier and Qualcomm will use the channel for mobile TV service. The B block (TV Channels 52/57) went for \$3.961 billion.

The most noted loser in the auction was Google, which bid on block C and wanted for use for an open network. FCC will require the winner Verizon to open its network as Google had proposed before the auction. Google was not expected to win the bidding, but helped to push the bidding past



Amateur Radio News

compiled by Tom Weeden, WJ9H

Amateur Radio exempt from California's new "Hands Free" law

On July 1, California will have new laws on the books to deal with the use of wireless telephones while driving. There has been some confusion as to whether California amateurs who operate in their car will be affected by the new law. According to the California Department of Motor Vehicle's Web site (www.dmv.ca.gov/cellularphonelaws/dl208_03cell_phone.pdf), "the use of dedicated two-way radios such as walkie-talkies or Citizen Band (CB) radios is not affected by the new law" for drivers 18 or older.

FCC fixes typos in Rules

On March 12, in an effort to correct typographical errors in the Commission's Rules (including rules affecting Part 97, the Amateur Radio Service), the FCC released a Memorandum Opinion and Order (MOO) http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-08-530A1.pdf.

According to the FCC, these changes in the MOO are "non-substantive editorial revisions" and do not introduce new rules or change old rules applicable to Amateur Radio operators.

The FCC is updating the Allocation Table

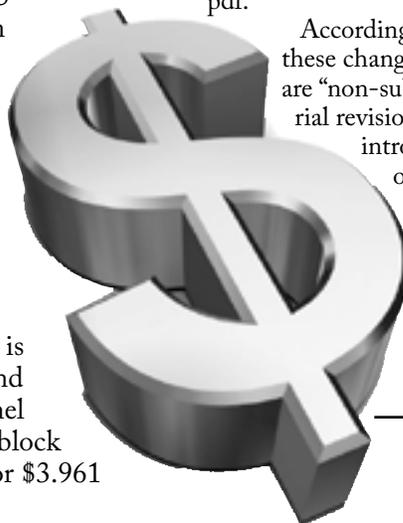
and service rules for the Amateur Radio Service for the band 75.5-81 GHz. In 2003, the Commission released a Report & Order (R&O) that adopted a transition plan for the amateur use of the segment 75.5-76 GHz. On January 1, 2006, the band segment was no longer available for use by the Amateur Service.

In October 2006, the FCC released another Report & Order (R&O), the "Amateur Phone Band Expansion R&O," that expanded the high-frequency phone bands. With the release of the MOO, the FCC is making two changes.

The first change is a correction of a typographical error in the Rules for the General phone allocation on 15 meters. The Commission revised 21.30-21.45 MHz to read 21.275-21.45 MHz, but the current rule does not reflect this change. The second change fixed an omission in the Novice/Technician allocation on 40 meters in ITU Regions 1 and 3 (basically outside the continental United States).

The FCC also took the opportunity to remove a double negative from Section 97.303(b). Before the release of the MOO, this Section read: "No amateur station transmitting in the (...various band segments...) SHALL NOT cause harmful interference to, nor is protected from interference due to the operation of, the Federal radiolocation service." The FCC chose to take out the word "NOT" to bring the rule's words in line with the spirit of the rule.

Excerpts from the American Radio Relay League's Web site, arrrl.org



a point that the FCC would require the network to be opened to technologies other than those provided by the carrier that won the spectrum.

FCC Chairman Kevin Martin issued a statement expressing his pleasure at the outcome of the auction noting that the auction generated nearly double the amount that Congress estimated of \$10.2 billion.

From FCC Releases (www.fcc.gov) and Mobile Radio Technology

Wanted: Dead or Alive

A faithful employee

Statistics reveal that one work ethic all employers long for: faithfulness. When managers can depend on their staff, it improves efficiency and makes the job more enjoyable for all. Faithfulness is demonstrated when our actions are rooted in good character. Mother Theresa once said, "I do not pray for success, I ask for faithfulness."

Integrity is established as we consistently do what is right, even when no one is watching. Faithfulness to your employer and integrity are addressed in SBE's Canon of Ethics. The third area of our code of ethics, Relations with Clients and Employers, encompasses 11 sections.

Section 8. The Broadcast Engineer will act in professional matters for his employer as a faithful agent or trustee.

Section 9. The Broadcast Engineer will act with fairness and justice between his or her employer.

Section 10. The Broadcast Engineer will make his or her status clear to his or her employer before undertaking an engagement if he or she may be called upon to decide on the use of inventions, apparatus, or any other thing in which he or she may have a financial interest.

Section 11. The Broadcast Engineer will guard against conditions that are dangerous or threatening to life, limb or property on work for which he or she is responsible, or if he or she is not responsible, will promptly call such conditions to the attention of those who are responsible.

Section 12. The Broadcast Engineer will present clearly the consequences to be expected from deviations proposed if his or her engineering judgment is overruled by non-technical authority in cases where he or she is responsible for the technical adequacy of engineering work.

Section 13. The Broadcast Engineer will engage, or advise his employer to engage,

From the Chair

Dennis Baldrige



and he or she will cooperate with, other experts and specialists whenever the employer's interests are best served by such service.

Section 14. The Broadcast Engineer will not disclose information concerning the business affairs or technical processes of employers without their consent.

Section 15. The Broadcast Engineer will not accept compensation, financial or otherwise, from more than one interested party for the same work, without the consent of all interested parties.

Section 16. The Broadcast Engineer will not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with his employer in connection with work for which he or she is responsible.

Section 17. The Broadcast Engineer will not be financially interested in the bid as or of a contractor on competitive work for which he or she is employed as an engineer unless he or she has the consent of his or her employer.

Section 18. The Broadcast Engineer will promptly disclose to his or her employer any interest in a business which may compete with or affect the business of his or her employer. He or she will not allow an interest in any decision regarding engineering work for which he or she may be called upon to perform.

Faithfulness and integrity are intertwined. We demonstrate these with our employers by firm adherence to a code of moral and ethical values. Without these values, our motives can become distorted. Our faithfulness and integrity wnot only enable us to be a good employee, but benefit the entire company.

Let's all work to practice SBE's Canon of Ethics, particularly in our relations with clients and employers through faithfulness and integrity.

Subtlety may deceive you; integrity never will.
—Oliver Cromwell, 1640

FCC OKs short AM antennas

By Tom Smith

On February 22, FCC announced that it would accept the use of Valcom whip antennas for AM stations from 1200-1700 KHz, with the stations not having to conduct a proof of performance of its radiated field pattern. The Commission will allow the use of the Valcom antenna for non-directional station only at this time.

The Valcom antenna is a fiberglass whip antenna that is shipped in sections and assembled on the ground and erected by tilting it up on a hinged base. The antenna has a loading coil one-third of the way up the antenna and wire sphere at the top for additional loading. AM stations could use it where a taller tower cannot be used due to space limitations or zoning issues.

The FCC will allow the use of the 85-foot model for stations on 1200 to 1390 KHz and the 75-foot model for stations from 1390 to 1700 KHz. All antennas must use a buried ground system with 120 radials that are 120 feet long. Any changes in the ground system will require field measurements for the antenna system to be accepted by FCC.

Valcom is a Canadian company, which originally built antennas for radiolocation and short-wave communications.

From FCC Releases (www.fcc.gov)



Diane Mayer
Broadcast Sales Specialist

40W267 Keslinger Road
PO Box 393
LaFox, IL 60147-0393
USA
Phone: (800) 348-5580 Ext. 2687
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E-mail: dmayer@rell.com

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Unlicensed device debate continues

By Tom Smith

On January 17, FCC announced another round of testing for prototype unlicensed devices to operate in the TV broadcast band. The tests started on January 24 and were to include devices from Adaptrum, Microsoft, Motorola and Phillips. FCC also issued an eight-page notice on the test procedures. So far, the only results from the testing that have become available according to a number of publications is that the device that Microsoft submitted failed during testing. Microsoft claimed that the power supply overheated. Microsoft submitted a second device, and it has been reported that that device has also failed FCC testing.

On February 5, FCC announced that it was creating a test bed for the testing on unlicensed devices in 10 MHz of the 470-512 MHz (Channels 14-20) portion of the TV broadcast band. This test will be done at locations that will not cause interference to TV broadcasters and land mobile operations in portion of the band. The band to be occupied is for the use of tests on frequency sensing and geographic location sensing (GPS based systems) systems.

On February 29, FCC issued three reports on unlicensed use of the spectrum. These reports were based on economic models and not on the physics of radio frequency interference.

Three days after the 700 MHz auction ended on March 21, Google, which lost its bid for spectrum in the auction, sent FCC an ex parte letter outlining its plans for the use of "TV white space." They proposed the use of geo-locating device (GPS) and the use of an accessible database of users to detect open spectrum. For the protection of wireless mics, they proposed the use of a beacon signal from wireless mics and a safe harbor on Channels 36 and 38. Channel 37 was not used because it is reserved for radio astronomy and medical telemetry devices. Google's proposal is mainly for the use of the 4-watt unlicensed fixed system. The proposals or arguments by Google were not different than previous proposals.

From FCC Releases (www.fcc.gov)

Interference from 4 watts?

How much interference could you expect from the 4-watt signal proposed for use by unlicensed broadband signals in the TV band? Charles Rhodes has done a number of articles in TV Technology on the subject with lots of facts and figures.



To make a simple comparison, what if both signals were treated as if they were the same?

Without figuring the differences between the WiMAX signal to be used for the unlicensed devices and an ATSC DTV signal, the following coverage distances were figured using a calculator on the FCC Web site for DTV signals. The curves used were the same as used for DTV, the 50-90 curves and 41 dbu DTV signal edge of coverage signal strength was used for the WiMAX signal. At 100 feet, the distance to 41 dbu is 4.67 miles; at 150 feet, it is 5.76 miles; and at 200 feet, it is 6.67 miles. The antenna heights are similar to a lot of cell antennas and would most likely be the same for a WiMAX network. By using the 41 dbu limit, a desired to undesired ratio would be one to one. In the real world, the ratio would be greater than one to one as the interfering signal could be much less and still cause problems. In fact, a co-channel TV station's signal level at the edge of desired station's service contour is much less than 41 dbu to avoid interference.

One final question: Would 4-watts be sufficient for the broadband services Google and other wish to provide? Unless the cells are very small with short antennas, building penetration will be very poor making the mobile operation they seek difficult.

May '08 SBE Chapter 24 newsletter

Copy deadline: Friday, May 2

Folding party: Wednesday, May 7

E-mail submissions to John Salzwedel at john@tokencreek.com.




John Reuter
Sales Engineer
johnr@alphavideo.com
7711 Computer Ave.
Edina, MN 55435-5494
dir 952.841.3354
p 952.896.9898
f 952.896.9899
c 612.889.6540

SOUND DEVICES
Portable, Professional Audio
Sound Devices, LLC
300 Wengel Drive
Rendburg, WI 53958 USA
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SBE Chapter of the Air

HamNet meets the second Sunday of each month at 0000 GMT on 14.205 MHz. Hal Hostetter WA7BGX is the Control Station. Any amateur operator is welcome and encouraged to participate.

Using the SBE logo

SBE chapters and members may use the SBE logo on business cards, letterhead and chapter newsletters. When referring to a chapter, it must be used with that chapter's name or number adjacent to the logo. Members must put "Member of" or "Certified by" adjacent to the logo.

The proper logo must be used in any case. The correct logo can be obtained only through the SBE National Office. Send your request to Angel Bates at abates@sbe.org.

Certification Exam Session Dates

The SBE National Certification Committee has announced exam session dates. Check the list below for the exam period that is best for you. For more information about SBE Certification, see your Chapter Certification Chair or contact Megan Clappe, Certification Director at the SBE National Office at (317) 846-9000, or mclappe@sbe.org.

<u>Exam Dates</u>	<u>Location Application</u>	<u>Application Deadline</u>
June 6-16, 2008	Local Chapters	April 18, 2008
August 8-18, 2008	Local Chapters	June 6, 2008
November 7-17, 2008	Local Chapters	September 19, 2008



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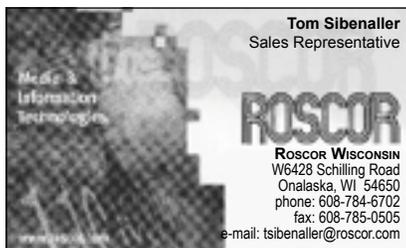
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John Salzwedel
 501 Moravian Valley Road, Waunakee WI 53597
 Office: 608-849-4965
 Fax: 608-849-4035
 Cell: 608-235-9632
 www.tokencreek.com
 john@tokencreek.com



WISCONSIN PUBLIC TELEVISION
 821 University Ave. Phone 608.263.2121
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 www.wpt.org



BELDEN
 Don Heinzen
 Datacom Manager
 Direct: 608.848.2001
 don.heinzen@belden.com
 9001 Hawks Reserve Lane,
 Unit 103
 Verona, WI 53593
 Office: 608.848.2001
 Fax: 608.848.2001
 www.belden.com



Tom Sibenaller
 Sales Representative
ROSCOR
 Roscor Wisconsin
 W6428 Schilling Road
 Onalaska, WI 54650
 phone: 608-784-6702
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 e-mail: tsibenaller@roskor.com



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

CHAPTER 24 SUSTAINING MEMBERS

RECENT RENEWALS

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 maney-logic

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- Scharch Electronics
- Sound Devices, LLC
- Token Creek Mobile TV
- WISC-TV 3
- Wisconsin Public Television
- WKOW-TV 27
- WMSN-TV 47
- WMTV-TV 15

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 **National Contacts**

Society of Broadcast Engineers, Inc.

9102 N. Meridian St.
Suite 150
Indianapolis, IN 46260

Office: 317-846-9000
Fax: 317-846-9120

Web: www.sbe.org




8001 Terrace Avenue
Middleton, WI 53562
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Fax: 920.893.3106
EMAIL: mbart@hvs-inc.com

Mark Bartolotta
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Cottage Grove, WI 53527

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Cell 781-929-7179


2616 N. 85th Street
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David Geon
Sales Representative

Direct: 414.453.7409
david.geon@belden.com

Fax: 414.433.1850
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Contributors this month: Tom Smith, Tom Weeden, Steve Paugh and Dennis Baldridge. Thanks to Leonard Charles for his work on the Chapter 24 Web page.

FIRST CLASS MAIL




SBE Chapter 24 Newsletter
P.O. Box 46291
Madison, WI 53744-6291