



**Chapter 24, Inc.
Madison, Wisconsin**

Society of Broadcast Engineers

July 2000

UPDATED WISCONSIN EMERGENCY ALERT SYSTEM PLAN NOW AVAILABLE

By Gary Timm

The Wisconsin State Emergency Communications Committee (SECC) would like to make all Wisconsin broadcasters aware that the Wisconsin State EAS Plan has been updated for the Year 2000, and is now available for the first time on the Internet. The plan can be found at www.sbe24.org/eas and is available for download and printing. The State EAS Plan is a document that the FCC looks for on its inspections, so all broadcasters are advised to have a current copy of the Plan on hand. Aside from the legal requirements, the revised Plan contains details of changes that broadcasters will want to be aware of. The new information, outlined below, is explained in detail on pages 2 and 3 of the revised State Plan.

At this time, the Committee is requesting that all stations intending to carry EAS messages from the Governor should reprogram their EAS Decoder, as well as add an audio input to their on-air audio console or video switcher.

Further, stations should note that in April, 2001, a test Tornado Warning will be sent by the National Weather Service as part of their Tornado Awareness Week. This test will appear on your station as a *real* Tornado Warning. TV stations, in particular, are asked to alleviate any confusion to the public by displaying a "This is a test" message behind the video crawl.

In order to keep updated on further changes to the State EAS Plan, it is suggested that someone at each station (preferably the engineer) subscribe to one of the Wisconsin SBE e-mail listservers. E-mail messages will be sent out to all subscribers of these lists when any changes are made to the State EAS Plan.

Details on subscribing to the e-mail listservers, as well as further
(continued on page 7)

Next Meeting:

**Wednesday,
July 19, 2000**

Annual SBE Chapter 24 Picnic

**Mendota County
Park**

**Highway M in
Middleton**

**4:30pm to
mosquitoes!**

**See You There!
(see map inside)**

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FCC RECEIVES FIRST LPFM APPLICATIONS

By Tom Smith

On June 21st, the FCC announced the first batch of low-power FM Applicants. The FCC received 722 applications for various civic, religious and educational groups along with local and state governments during the May 30th to June 8th filing period. They received the following number of applications from each of these ten states: Alaska (27), California (309), District of Columbia (4), Georgia (109), Indiana (73), Louisiana (66), Maine (12), Maryland (17), Oklahoma (61), Rhode Island (25) and Utah (19). The FCC posted the names of the

applicants and the location of the proposed station in the daily notices on June 21st.

Scanning throughout the list, it appears that there are a number of individuals and multiple applications from single entities in the list. Only non-profit groups and governments were supposed to apply with a one-to-a-customer limit on LPFM stations granted. This will decrease the final number of licenses granted from this list of applicants.

The next filing period will be announced at the end of July, with it

occurring at the end of August. The states and territories that are open to applicants are Connecticut, Illinois, Kansas, Michigan, Minnesota, Mississippi, Nevada, New Hampshire, Puerto Rico, Virginia, and Wyoming.

In the legislative arena, the House of Representatives passed a bill limiting LPFM, while in the Senate two bills were introduced concerning LPFM. One was introduced by Senator Judd Gregg of New Hampshire that would shut down the FCC's plan for LPFM. The second bill was introduced by Senator John McCain of Arizona and

(continued on page 3)

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June Business Meeting Minutes

Chapter 24 of the Society of Broadcast Engineers met on Tuesday, June 20, 2000 at UW-Extension Instructional Communications Services (ICS) at the Pyle Center in Madison, Wisconsin. There were 12 members in attendance, 10 of whom were certified, and 1 guest.

Filling in for Chairperson Kevin Ruppert, Vice Chairperson Tom Smith called the meeting to order at 7:15 PM. Minutes of the May meeting, as published in the June newsletter, were approved as published.

Jim Hermanson reported, on behalf of Treasurer Stan Sarch, that the chapter treasury is in the black.

Newsletter Editor, Mike Norton, reported the deadline for the next newsletter as midnight on July 7, with the folding party the following Wednesday, July 12 at WKOW-TV beginning at 5:30 PM.

Membership Coordinator, Paul Stoffel, was not present.

On behalf of Sustaining Membership coordinator Fred Sperry, Mike Norton reported that we have acquired Ross Video as a new sustaining member, and had recent renewals from National Tower Service, Sony, and Token Creek Productions.

Program Committee, Denise Maney, announced that the next meeting will be on Wednesday, July 19. A picnic will be held at the traditional location, Mendota Park. To avoid an overabundance of potato salad, Denise will have a food contribution sign-up sheet on the Chapter 24 web site.

Certification, Jim Hermanson, reported that the local exam period just ended. During the exam period, Jim administered two Certified Broadcast Network Technologist (CBNT) exams. The next local exam session will be held from August 18 to August 28. Registration for the August exam session must be submitted by July 7.

Frequency Coordinator, Tom Smith reported that he has transferred his frequency coordination database from an old word processor to a Works database.

National Liaison, Leonard Charles, was not present.

It was announced that Kevin Ruppert has turned in the national award nominations for Chapter 24.

For Professional Announcements, Jim Hermanson informed us that the new State EAS Plan is available on the Chapter 24 web site at <http://www.sbe24.org/eas> as a PDF file. The EAS plan can be downloaded using Adobe Acrobat. Chapter 24 has a limited number of CD-ROMs containing

(continued on next page)

June Minutes (continued)

Adobe Acrobat 4.0 available for people who need to download Adobe Acrobat, but would be encumbered by a slow modem.

Tom Smith adjourned the business meeting at 7:25 PM.

The evening's program was presented by Ms. Jamie Poindexter, Technical Operations Manager at UW-Extension Instructional Communications Service (ICS) at the Pyle Center. We learned about video conferencing and distance education technology, and then toured the Pyle Center.

Submitted by Vicki Kipp, Secretary

**LPFM Applicants
(continued from page 1)**

Senator Bob Kerrey of Nebraska that would allow the FCC to go ahead with it's plans for LPFM. Senator Gregg's bill has 36 co-sponsors, but Senator McCain heads the committee that handles communication issues.

From FCC Releases (www.fcc.gov) and BROADCASTING and CABLE

**DO YOU HAVE SBE
MEETING PROGRAM
IDEAS?**

Is there a topic you would like to see covered at one of our local Chapter 24 meetings? Or, better yet, is there a topic that you are qualified to speak on at an upcoming meeting?

Please forward any ideas to one of the Program committee members or to one of the Chapter 24 officers.

AMATEUR RADIO NEWS

By Tom Weeden, WJ9H

• The FCC has assigned the American Radio Relay League a role under the new Satellite Home Viewer Improvement Act. The FCC has designated the League to appoint a party to conduct a signal strength test at a subscriber's household in the event of a dispute between network affiliates and satellite carriers over who should carry out the testing. Under SHVIA, a household is eligible to get distant TV signals via satellite if it cannot receive a Grade B signal using a conventional, outdoor TV antenna, but viewers can apply for waivers. The SHVIA provides that if a waiver is denied, a consumer can request a signal test to determine the actual signal strength received. The ARRL could be called upon to select an appropriate entity to take the measurement in instances when the satellite provider and the network station cannot agree on one.

FCC Office of Engineering and Technology Chief Dale Hatfield called the ARRL "a particularly appropriate choice for this role because it has no commercial connection with delivery of television services." Hatfield said the ARRL would review the qualifications of proposed testing entities to determine their competence to take signal strength measurements at a given home site. He said the League also eventually may develop a list of qualified individuals or concerns to conduct such tests throughout the US.

• A group of Ohio teenagers using stolen radios taunted police over the air June 17, and bragged that they'd never be caught. According to news reports, police in Amherst and Vermillion, Ohio, share a public safety communications network. Using hand-held transceivers stolen from the public works department where one of the youths worked, the teens reportedly commenced to badger the police over the air with obscenities and threats, at times calling the officers by name. The cops tried to enlist the aid of the FCC's Detroit field office, but Commission personnel reportedly said they couldn't get direction-finding gear out there until the next day.

Enter ham operator Todd Dunlap, KC8EDS, of Amherst, who was able to track the signals to a basement recreation room in his own neighborhood. Authorities found the youths and two of the stolen radios. They later recovered the third at the home of the teenager who had allegedly stolen it. In addition to theft and harassment, the teenagers also were charged with possession of marijuana and disruption of public services.

(Excerpts from the American Radio Relay League's "ARRL Letter")

Thanks to WKOW-TV for providing copying and folding facilities for the Chapter 24 newsletter!

Thanks to WISC-TV for maintaining the web server for the Chapter 24 Web page!



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**NEW RF GUIDE
AVAILABLE**

By Tom Smith

The FCC and the Local and State Government Advisory Committee (LSGAC) have released a new guide on radio frequency (RF) emissions. This is a booklet to assist local governments and individual citizens in understanding the FCC rules concerning RF emissions.

It is published in plain English and focuses on human exposure to RF. It does not discuss other issues that are of concern to local governments such as tower siting, permits, construction codes, and zoning.

The booklet explains some basic RF theory, FCC guidelines on RF emissions and has forms and tables to check compliance with the FCC guidelines. This booklet could also serve as a quick reference for those in broadcast or other radio services.

The title is *A LOCAL GOVERNMENT OFFICIALS GUIDE TO RF EMISSION ANTENNA SAFETY RULES* and can be down loaded from the FCC at either www.fcc.gov/rfsafety or www.fcc.gov/statelocal.

From FCC Release (www.fcc.gov)

Special Thanks to Steve Paugh and Vicki Kipp for arranging the Dutch Treat Dinner and the Tour of UW-Extension's Instructional Communications Systems Pyle Center Facility for the June program.

Thanks also to Jamie Poindexter, Technical Operations Manager at ICS for allowing us to use the ICS facility for our business meeting, and for the facility tour.



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SBE Short Circuits — July 2000

*By John Poray,
SBE Executive Director*

recruited during the 2000 Membership Drive.

NATIONAL MEETING SET FOR MARS

The 2000 National Meeting of the Society of Broadcast Engineers will be held at the Pittsburgh Sheraton North in Mars, Pennsylvania, October 3-4. The Sheraton is 17 miles north of downtown Pittsburgh on I-79. The National Meeting is being held in conjunction with the Pittsburgh Regional Convention sponsored by Chapter 20. The Pittsburgh Regional Convention has been held for more than 25 years, features over 45 exhibitors and a full day of technical paper presentations. For more information about the National Meeting, see the June issue of the SBE SIGNAL.

MEMBERSHIP DRIVE WINNER HAILS FROM WYOMING

The SBE Membership Drive ended May 31 with more than 60 new members coming directly from the Drive. All of the recruiters had their name in the prize barrel one time for each new member they recruited when the big prize drawing was held in June.

Winning the Grand Prize of a trip to the SBE National Meeting and Pittsburgh Regional Convention was Mark Knittle of Laramie, Wyoming. Mark is a member of Chapter 129, Wyoming. Mark wins roundtrip airfare to Pittsburgh, two nights stay at the Pittsburgh Sheraton North and a free ticket to the SBE National Awards Reception and Dinner.

A complete list of the prizewinners will be in the September issue of the SBE SIGNAL. In addition to the product prizes, each recruiter will receive \$5.00 off their 2001 SBE membership renewal for each new member

**SBE CHAPTER 9 ANNOUNCES
REGIONAL CONVENTION IN
PHOENIX**

Chapter 9 in Phoenix, Arizona will present a SBE Regional Convention in conjunction with the Arizona Broadcasters Association's fall convention on Thursday, October 12. Chapter 9 will be organizing an exhibit floor and arranging technical papers for the event. For information about exhibiting or to present a paper, contact Gerry Grunig at (602) 262-5106 or ggrun926@fox.com.

Exhibits and papers will be free to broadcast engineers. There will be a special "Engineer's Breakfast" at 7:30 am with a speaker. Cost of the breakfast is \$5.00. The Convention will be held at the Sheraton Crescent Hotel, 2670 W. Dunlap in Phoenix.

**MONTHLY HAMnet BRINGS SBE TO
REMOTE AREAS**

At 8:00 pm EST, 0000 GMT, on the second Sunday of each month, SBE Chapter 73 takes the air. Hal Hostetler, WA7BGX, of Tucson, Arizona, is the control station for the "meeting." Updates on SBE activities are given each month and participants can discuss technical issues and visit.

HAMnet was originally begun to help serve members who lived too far to attend meetings of any regular chapter, but any amateur operator is welcome and encouraged to participate. Look for HAMnet on 14.205 MHz.

Questions and comments about SBE may be e-mailed directly to Executive Director, John Poray at jporay@sbe.org.



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FCC Rulemakings

Compiled by Tom Smith

PROPOSED RULEMAKINGS

**MM Docket No. 00-108
In the Matter of Amendment of
Section 73.658 (g) of the
Commission's Rules, The Dual
Network Rule.**

The FCC is proposing to amend its rules to allow the existing big four broadcast television networks to purchase a second broadcast network. The FCC is setting limits on which networks are available to the big four. Under the proposal, they would only be allowed to purchase one of the emerging networks, which are the WB Network, the UPN Network, or the Paxson Network. The FCC would not allow ABC, CBS, Fox, or NBC to purchase each other.

The FCC declared that because of the vertical integration of the networks with Disney, Fox, and Viacom each owning film production companies, there would be too much concentration of power if two of the major networks merged. They stated that with fewer hours of programming, viewers and stations, WB, Paxson, and UPN presented less of a problem. There is a long primer on network economics as part of the discussion of issues in this notice.

If this rulemaking is adopted as proposed, it will allow Viacom to retain ownership of the UPN Network along with the recent purchase of CBS. The proposed rule would also allow NBC to increase its share in the Paxson Network from its current minority interest. Another possibility is that Time-Warner could purchase NBC from General Electric or GE could purchase Time-

Warner. The America Online/Time Warner merger could have an anti-trust effect on such a merger.

The FCC created the dual-network rule in 1941 for radio. At that time NBC had two networks: the Blue and the Red. One of the networks became ABC. The rule was extended to TV in 1946. The FCC relaxed the dual network rules for radio when ABC started a number of specialty networks about thirty years ago.

This notice was adopted on June 8, 2000 and released on June 20th. Comments are due on September 1, 2000 with replies due on October 2, 2000. This is part of a biennial review of broadcast ownership rules.

**MM Docket No. 00-105
In the Matter of Elimination of
Experimental Broadcast Ownership
Restrictions**

The FCC is considering the elimination of the rule restricting the ownership on a license for an experimental broadcast station to one per entity. This would allow for a company to hold a number of licenses at different locations. The FCC states that there are enough restrictions on experimental licenses that no one should be able to abuse them. Experimental licenses are used for such things as testing antennas on a test range, transmitters into antennas, and test stations such as the DTV test stations in Washington, DC.

This rule would have allowed the ASTC test committee to have built a number of experimental DTV stations around the country to test terrain conditions. Instead, some of the test transmitters were owned by local

stations so that tests could be conducted in different regions.

This notice was adopted on June 5, 2000 and released on June 20th. Comments are due on September 1, 2000 with replies due on October 2, 2000. This is part of a biennial review of broadcast ownership rules.

**ET Docket 98-153
Revision of Part 15 of the
Commission's Rules Regarding
Ultra-Wideband Transmission
Systems**

The FCC has issued a Notice of Proposed Rule Rulemaking which would create a new service under Part 15 of the rules, which are the rules concerning unlicensed transmitting devices. The technology that this proposed service would operate under is called Ultra-Wideband Transmission. It is a pulse modulated transmission that could occupy a bandwidth of possibly several gigahertz. It would operate with an average power of 10 to 200 milliwatts and a peak power of 10 to 1000 watts.

These devices would be used as a type of radar for such uses as finding underground obstructions, things within structures such as support steel or faults in concrete, or any other thing hidden in or behind a structure such as a wall. These devices can be used for locating persons under fallen structures and for collision avoidance in vehicles. They may also be used as a method of transmitting data for short distances.

The FCC asked for comment about a large number of technical issues, with interference to existing services

(continued on page 6)



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FCC RULEMAKINGS (continued from page 5)

as the main concern. They particularly asked for comment on possible interference to services under two gigahertz. The main concerns were to a number of critical services such as GPS, and to commercial services such as broadcast TV and PCS. This is a highly technical notice and one should read the full notice to understand all of issues involved.

The notice was adopted on May 10, 2000 and released on May 11, 2000. Comments are due on September 15, 2000 with replies due on October 15, 2000.

WT Docket No. 99-168, CS Docket No. 98-120, MM Docket No. 00-83 Service Rules for the 746-764 and 776-796 MHz Bands, and Revisions to Part 27 of the Commission's Rule, Carriage of the Transmissions of Digital Television Broadcast Station, Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television

This action by the FCC covers a number of issues concerning the use of the of the spectrum that is occupied currently by TV channels 60-69. This issue affects the part of the band not allocated for public safety and required to be auctioned by the FCC later this year.

The first part of this notice reaffirmed the Commission's actions in setting the technical rules concerning the use of TV Channels 60-63 and 66-67. Most of the rules were left as created in the original rulemaking. A few of the rules were changed to clarify some technical issues, but none caused any change in how any potential service would operate.

The main impact on both the new

services and the existing stations in this part of the TV band is in the Notice of Proposed Rulemaking that the FCC issued. The FCC is looking for ways to entice the existing stations to move to other parts of the TV band and open the spectrum to the new services.

Existing stations do not have to make way for the new services until the end of the DTV transition. They have interference protection from these new services which places a limit on where the new services can place their transmitters. Moving these TV stations would make the band more valuable because the new services could be started in many more areas at an earlier date. Most of the stations that occupy channels 60-69 are in major markets where more potential customers are located.

The FCC is looking at three methods to aid in the early clearing of this spectrum. The first is the allowing of three way agreements. This would allow the new service provider to make a deal with the existing station in the channel 60-69 band to move to a channel occupied by a station in a lower band. That station could give up either its DTV or analog channel. If it gave up its DTV channel, the station would be required to start DTV operations on its analog channel. Both stations would be paid in this type of agreement.

The second proposal is for all the bidders in the auction for the new service spectrum to bid for the right to enter into an agreement with the incumbent stations to move. The winner would receive an option to enter into an agreement if they win the new spectrum from the FCC. This option would be priced at the lowest amount that the incumbent stations would accept. This auction would occur before the auction

for the new spectrum. This auction could be conducted by either the FCC or a private concern. This method was proposed by a company called Spectrum Exchange. This method is complex and could be subject to many problems considering that there are so few licenses to bid on for the new spectrum.

The final proposal is one that would require each of the licenses for the new services to share the costs of moving an incumbent TV station, if that station occupies spectrum that both services are allocated.

This notice was adopted on June 22, 2000 and released on June 30, 2000. Comments are due on August 16, 2000 with replies due on September 15, 2000.

FINAL RULEMAKINGS

ET Docket No. 99-255, PR Docket No. 92- 235

The FCC has created a new wireless service called the Wireless Medical Telemetry Service. This service was created due to problems some hospitals were having with interference with their wireless medical monitoring equipment. This had mostly occurred with the signing on of new DTV stations, as most of the equipment was authorized to operate under Part 15 of the rules on the TV broadcast bands without a license. This equipment was also authorized to operate under Part 90 of the Rules in the UHF land mobile band.

The medical telemetry equipment will now be authorized to operate under Part 95 of the Rules under the following bands; 608-614 MHz, 1395-1400 MHz and 1429-1432 MHz. The 608-614

(continued on next page)

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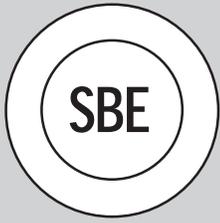


FIRST CLASS MAIL

Newsletter edited on Pagemaker 5.0 by: Mike Norton
 Contributors this month: Vicki Kipp, Mike Norton, Tom Smith, Gary Timm, and Tom Weeden.
 Thanks to Leonard Charles for his work on the Chapter 24 WWW page.

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JULY MEETING and PROGRAM

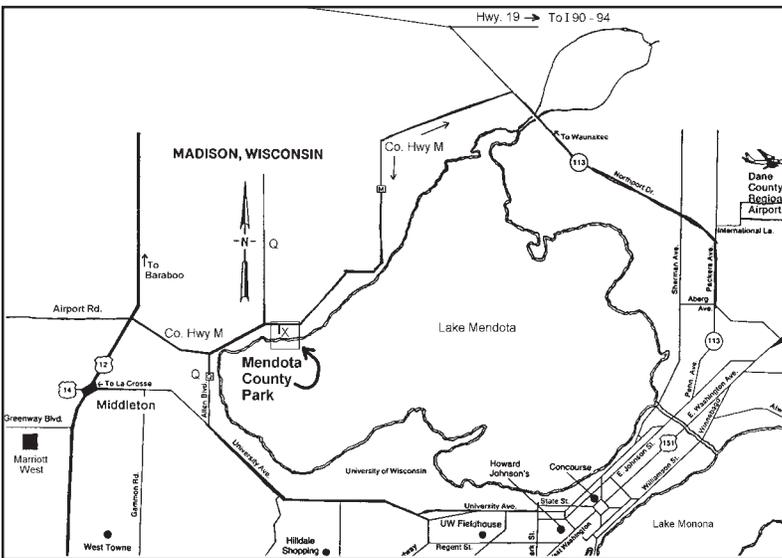


Society of Broadcast Engineers CHAPTER 24 MADISON, WISCONSIN Wednesday, July 19, 2000

Annual SBE Chapter 24 Picnic and Horseshoe Tournament

Mendota County Park
Highway M in Middleton
4:30pm 'til ...mosquitoes!

Feel free to come early and practice your throw. The SBE Chapter 24 will supply burgers, brats, hot dogs, buns and condiments, paper plates, plasticware, and napkins. Join us at Shelter #2 (not by the lake), between the



campgrounds and tennis courts. (Turn left at the first large parking lot.)

The grill will be started at 6 p.m. There will be a brief business meeting, then the games begin!

See the Chapter web site to indicated your choice of a dish to share.

Visitors and guests are welcome at all of our SBE meetings!

2000 UPCOMING MEETING/PROGRAM DATES:

Day	Date	Program
Thursday	August 24	Broadcast Antennas

Program Committee:	Kerry Maki 833-0047	Denise Maney 277-8001	Steve Zimmerman 274-1234	Mark Croom 271-1025	Steve Paugh 277-5139
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