



July 2008

Society of  
Broadcast Engineers  
Newsletter  
Chapter 24  
Madison, Wisconsin



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## Next Meeting

Tuesday, July 15

### Loudspeakers, Part 2

This month, program chair Steve Paugh will continue his overview of the fundamentals of loudspeaker design. We will explore the causes of why speakers sound different and the laws of physics that define those differences. Topics to be covered are driver sizing, a demonstration of cross-over operation and calculating driver SPL and efficiency. A demonstration of driver excursion and distortion will be given.

#### Dutch Treat Dinner, 5:30 p.m.

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

#### Meeting & Program, 7 p.m.

WISC Studio C  
7025 Raymond Road, Madison

Park in the front parking lot; enter via the front lobby entrance

## A Jolly Good “Fellow” *... our own Leonard Charles!*

The Board of Directors of the Society of Broadcast Engineers voted to elevate Leonard Charles, CPBE, to the rank of Fellow in the Society. The Fellow membership is the highest recognition the Society can bestow on a member. Charles' election to Fellow was announced in the June issue of *Signal*, SBE's membership publication.

Nominees for Fellow are not aware they have been nominated. Prior to Charles' election, only 69 members had been elected SBE Fellows over the course of the Society's 44-year history. Charles, known by many as Chuck, will be recognized at the 2008 SBE National Meeting October 15, during the SBE National Awards Dinner program, held in Madison this year.

Charles is director of engineering for Television Wisconsin in Madison and has been a member of SBE for 25 years, having joined in 1983. He has been very active in leadership roles for Chapter 24 in Madison, having served as chapter chair and vice chair and many other leadership roles as well.

He served on the national SBE Board of Directors for four years during the mid-1990s and, while on the Board, wrote the SBE EAS Primer, a publication that helped hundreds of local engineers around the country implement the Emergency Alert System when it was first introduced. He served as the Society's first EAS Committee Chairman and, with his committee, worked hard to promote an understanding and effective and proper use of the EAS system.

While the national EAS policy was being written, Leonard wrote many articles for national trade publications that provided a resource for broadcasters as they attempted to understand and roll out the EAS system. He was named the Society's Broadcast Engineer of the Year in 1995.

Charles has played a key role in the Wisconsin Broadcast Association's efforts this year to educate the public about the transition to digital television through a series of workshops around the state. Engineers, instructed by Charles, provided the technical support for these workshops and provided both the analog and digital signal for "Show and Tell" as well as provided converter box demonstrations.

Leonard Charles is truly deserving of this recognition. As one of his nominators wrote, "Chuck is a consummate broadcast professional and friend, well deserving of this prestigious honor."

Wednesday, Aug. 13: Wisconsin Public Radio Tour

Thursday, Sept. 11: Trends in Nuclear Energy

Wednesday, Oct. 15: Broadcast Clinic/SBE National Meeting



## Coming Up



## Chapter Contacts

### Chapter Leadership

*Chair*

Dennis Baldridge  
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*Vice Chair*

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# FCC lifts freeze on DTV maximization applications

By Tom Smith

On May 30, the FCC lifted the freeze on applications for the maximization and petitions for digital channel substitutions. This freeze was issued on August 4, 2004 and the Commission anticipated on lifting the freeze in the middle of August of 2008. The freeze allowed the Commission to provide a stable database during the channel election process and the processing of applications for post-transition digital facilities. Stations filing for maximization or channel changes must still complete their facilities as described in their construction permits before February 17, 2009. The Commission did not accept in this action, applications for allotments for new stations or changes in community of license.

The FCC set June 20, 2008 as the deadline for filing the applications for maximization and channel substitutions. The suddenness of the notice and the short filing period caused many stations to scramble to get their applications prepared as they were originally planning on an August filing deadline.

*From FCC Release ([www.fcc.gov](http://www.fcc.gov))*

## Green Bay Flight Service Station closed

The FAA has closed the Green Bay Flight Service Station, which was the FAA notification point for all tower light outages and restoration reports.

For all Wisconsin-based towers, the new reporting number for tower light outages now changes to 877-487-6867. Stations with current open notifications to the Green Bay FSS will need to call this new number when the notification can be cleared.

**new number**

**877-487-6867**



# Meeting Minutes

June 2008

Chapter 24 of the Society of Broadcast Engineers met on June 11, 2008 at Badger Prairie Park in Verona as part of the chapter's annual picnic. Vice Chair Clif Groth called meeting to order at 7:00 p.m. Eight members were present, seven of whom were certified, and nine guests. Tom Weeden moved to adjourn, Leonard Charles seconded, motion carried. The meeting adjourned at 7:00:45 p.m. and the chapter picnic resumed.

*Respectfully submitted by  
Tom Weeden, Acting Secretary*



**WMAD (FM), Sauk City, WI 96.3  
MHz, WIBA-FM Madison, WI 101.5  
MHz**

Capstar TX Limited Partnership, a subsidiary of Clear Channel Communications, Inc., has applied to the FCC for a minor change in status to change the city of license for WMAD (FM) from Sauk City, WI to Cross Plains, WI. In their application, they also asked the FCC for permission to do a one-step change to change the class of WMAD (FM) from Class B1 to Class A and move the transmitter



# FCC Rulemakings

compiled by Tom Smith

## ORDER ON CLARIFICATION

*MB Docket No. 07-91*

*Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*

On May 29, the FCC adopted and released an Order of Clarification on two DTV issues. The first was on a request for clarification from MSTV and NAB on the consolidation of viewer notifications concerning extensions of time for construction of post-transition facilities that will not be completed by Feb. 17, 2008 causing reduced coverage, reductions and termination of analog service before Feb. 17, 2008, and when stations on channels 52-58 seek to flash cut to their digital operation and terminate their analog or digital service on their out of core channel. This action would allow one message telling the public that you are doing two or more changes of operation, instead of one message for each change of operation.

The second clarification is that "real-time updates of the Event Information Table (program guide) are permissive and not required under the new PSIP standard adopted by the Order." The FCC encourages updates of the EIT as rapidly as possible when program changes occur, but the rules and FCC policies do not require it. The FCC rules are based on ATSC PSIP Standard A/65C, which does not require real-time PSIP updates. The FCC may revisit the issues if the ATSC standards mandates real time updates.

*From FCC Notice ([www.fcc.gov](http://www.fcc.gov))*



## Local Legals

compiled by Tom Smith

to the Madison Community tower. They propose to diplex the WMAD (FM) signal on the WIBA-FM antenna. WMAD (FM) would operate with a height above average terrain of 309 meters with the antenna 266 meters above ground. The proposed operating power would be 620 watts. WMAD (FM) currently operates at 5.1 kilowatts at 205 meters height above average terrain with the antenna 147 meters above ground. The transmitter site is on Springfield Hill, which is located on Highway 12 between Sauk City and Madison.

In order to facilitate the change of city of license for WMAD (FM), Capstar TX Limited Partnership also wishes to change the city of license for WIBA-FM from Madison to Sauk City. The FCC normally will not allow a station to change its city of license to another community if it is the only station in its current community. Moving WIBA-FM license to Sauk City would allow for a license to remain in that community and allow WMAD (FM) to move to Cross Plains. WMAD (FM) needs to change its class of license to Class A in order to meet spacing restrictions with other stations, if they are allowed to move to the Community Tower. Since a

Class A station operates with less power than a Class B1, they would not be able to provide a city-grade contour over Sauk City. By changing the city of license to Cross Plains, they would be able to provide a city-grade contour over their new city of license. The only change to WIBA-FM would be the city of license. Due their Class B status, which is more powerful than a Class B1, they would be able to provide a city-grade signal over Sauk City.

The FCC accepted both application for processing on May 9, 2008 and published a notice on May 13, 2008 in its Daily Digest.

*From FCC Daily Digest and Media Bureau Consolidated Records Database System ([www.fcc.gov](http://www.fcc.gov))*

## August '08 SBE Chapter 24 newsletter

**Copy deadline:**  
Sunday, Aug. 3

**Folding party:**  
Wednesday, Aug. 6

E-mail submissions to  
John Salzwedel at  
[john@tokencreek.com](mailto:john@tokencreek.com).



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# Amateur Radio News

compiled by Tom Weeden, WJ9H

## Hands-free in effect in Calif.

A new California hands-free cellular telephone law went into effect July 1. It, like many others around the country, prohibits using mobile telephones while driving, unless a hands-free device is utilized. The American Radio Relay League has received numerous questions about its application to the use of mobile Amateur Radio stations by licensed amateurs. The law states in part:

"23123. (a) A person shall not drive a motor vehicle while using a wireless telephone unless that telephone is specifically designed and configured to allow hands-free listening and talking, and is used in that manner while driving."

ARRL General Counsel Chris Imlay, W3KD, advises that "The definition of prohibited behavior in California's recent statute does not include a prohibition of operating a mobile, licensed Amateur Radio station while driving, because Amateur Radio transceivers are not telephones. While ARRL cannot guarantee that this statute will not be interpreted by law enforcement officers or the courts of California more broadly than that, it is our view that a fair reading of the statute excludes mobile operation of Amateur Radio equipment by licensed radio amateurs."

As Imlay notes, the language of the statute does not appear to include amateur mobile operation. Unfortunately, you could have to go through the inconvenience of appearing in court to contest a citation.

## Hams solve mystery in Penn.

When residents of a Philadelphia suburb complained to an area television station about how their remote car door entry devices wouldn't work in the parking lot of a local department store, an investigative

reporter for NBC-10 (WCAU) called everyone she could to help her discover why. No one knew anything — until she called on some local ham radio operators.

"Many people lock and unlock a car by remote and don't even give it a second thought unless it doesn't work," said NBC10 reporter Lu Ann Cahn.

"The mystery problem repeatedly occurs outside the Kohl's store in Royersford. When I went into Kohl's [to ask about this], they told me they had no idea [about this]."

Shoppers theorized that it was the local power plant causing the interference, but Cahn said that officials at the plant said it wasn't them. Others thought that cellular telephone towers might be the culprit, but there are no cell towers in the area. "Police tell us that they can't figure it out either," Cahn said.

So after calling numerous places to help her out with this mystery, Cahn happened upon Reggie Leister, N3KAS, and Bob Rex, K3DBD, of the Pottstown Area Amateur Radio Club. And as hams do, they were quick to volunteer to help out.

Leister and Rex accompanied Cahn to the parking lot in question. Rex built an antenna out of aluminum tubing and hooked it up to a spectrum analyzer.

"Somewhere in the vicinity of this parking lot," Leister said, "there is a big source of radiation, some sort of signal." When Leister aimed the antenna in the direction of the Kohl's store, he hit pay dirt. "There are actually two signals there. It looks like [they're] coming from the building," Rex said when he read the analyzer.

Leister and Rex moved in closer to the building and pinpointed that one signal was coming from one set of doors, while the other signal emitted from another set of doors. Rex, an engineer, said that the

thing that bothers him about this is that the signals "are running constantly." When Cahn approached Kohl's management with their findings, she was told that "they will look into it."

Three days after Leister and Rex located the source of the interference, remote car door lockers worked again. "Kohl's will only say that they're working on it," Cahn said. "The FCC says it does sound like something malfunctioned and they have had reports of similar incidents in New York City and Tampa, Florida."

Cahn was quick to give on-air credit to the local hams who stepped up to the plate and helped crack this mystery: "We here at NBC10 were so curious as to why these remote car locks would just stop working, so we thought we should really try to solve this mystery. I have to give kudos to Reggie Leister and Bob Rex with the Pottstown Area Amateur Radio Club. They were so great and so excited. You don't know how many people we called — police, Triple A, car dealerships — we called so many people trying to figure this out and nobody knew anything until we talked to these ham radio operators. They were so wonderful and they knew all about radio signals. They created their own gadgets to help us figure this out. We really want to thank them for their help with this."

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

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## Chapter 24 to co-host SBE National Meeting

The hosts for the 2008 SBE National Meeting are SBE Chapter 24 of Madison and the Wisconsin Broadcasters Association (WBA). The event will take place at the Madison Marriott West Hotel, located in Middleton on Madison's west side, October 14-16.

The SBE National Meeting will be held in conjunction with the annual Broadcasters Clinic, a three-day event that features broadcast technical presentations for radio and television engineers and a broadcast equipment expo.

This year's Broadcasters Clinic is dedicated to Don Borchert. Don is an exemplary member of SBE Chapter 24 and a faithful and enthusiastic supporter of the annual Broadcast Clinic.

I would like to encourage all members and broadcasters to attend these two exciting events. The materials presented are relevant to today's broadcast industry and prepare attendees to adapt to changing technology. There is no better way to advance your knowledge and skills than to attend these meetings.

Don't wait until an opportunity comes your way to prepare. Abraham Lincoln said, "I will prepare and some day my chance will come." Whitney Young, Jr. said, "It's better to be prepared for an opportunity and not have one than to have an opportunity and not be prepared."

The clinic is just around the corner. Mark your calendar, make your reservations and join the activities at the 2008 SBE National Meeting and Broadcasters Clinic.

## Sign up online at

[www.wi-broadcasters.org/events/Broadcasters%20Clinic/broadcastclinic.htm](http://www.wi-broadcasters.org/events/Broadcasters%20Clinic/broadcastclinic.htm)

## From the Chair

Dennis Baldridge



*"It's better to be prepared for an opportunity and not have one than to have an opportunity and not be prepared."*

—Whitney Young, Jr.

## D block comments

By Tom Smith

SBE has filed comments on the re-auction and licensing of the 700 MHz "D" block. This was a 10 MHz block of spectrum located in the 24 MHz block of current TV spectrum that will be reserved for public safety use. The FCC tried to auction this block of spectrum for shared commercial and public safety use in January. The winner was to build a national broadband network for public safety users and as part of the deal, they would be able to operate a commercial broadband network with the caveat that the spectrum be given up to public safety users during emergencies. There was only one bid for about half the reserve price FCC had set.

The SBE is proposing that the FCC set aside 50 kHz of spectrum in both the upper and lower bands of the "D" block, which would give a total of 100 kHz of spectrum. Federal, state and local emergency operating centers and broadcasters and cable systems would use the spectrum to transmit emergency information.

The SBE proposes using frequencies 758.0-758.05 MHz and 792.95-793.0 MHz. The system would support the Common Alert Protocol (CAP) messaging system and replace the current LP 1/LP 2 system, which descended from the old EBS daisy chain, broadcast relay system. The broadcast relay system will not support CAP because of its slow 512-baud data rate. It is also a nuisance to listeners and stations. As currently proposed, CAP messaging would be supported by Internet connections, which may not be available at all broadcast stations or cable headends.

Comments were due on June 20 with reply comments due on July 7. The SBE's comments are on the SBE Web site and information on whom you should contact if you wish to file comments in support of the SBE proposal is also there.

From SBE release ([www.sbe.org](http://www.sbe.org)) and Federal Register ([www.gpo.gov](http://www.gpo.gov)) 5-21-08



Entercom Madison

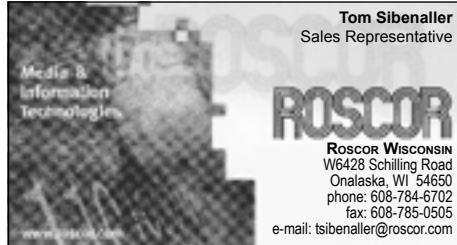
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The completion of the transition to DTV continues with the FCC increasing information for the public, particularly in Wilmington, NC, where they will conduct their analog shut-down at noon on September 8. On May 31, FCC representatives met with the public at three Wilmington-area retail outlets. Along with employees of a Best Buy, a Circuit City and a Radio Shack, they answered questions, gave demos of DTV converter boxes and gave an opportunity to sign up for DTV discount coupons.

On June 4, the FCC announced the start of two new outreach efforts. One is aimed at the Wilmington market and the other is a national outreach program. In Wilmington, the outreach program is called "First in Flight, First in Digital" connecting the DTV transition to the Wright Brothers first flight in nearby Kitty Hawk. Chairman Kevin Martin and Commissioner Michael Copps voiced radio spots for the Wilmington market, and the FCC has purchased billboard space at a number of locations around the Wilmington area. The FCC has also dispatched a team of experts to the five County Wilmington areas. They will conduct outreach efforts with federal, state and local agencies aimed at off-the-air viewers, particularly senior citizens, non-English speakers, minorities and persons with disabilities, along with town hall meetings with the public.

On June 4, the FCC announced a national outreach effort. This effort also includes working with various federal, state and local agencies, such as motor vehicle departments and agencies that deal with senior citizens, non-English speakers, minorities and persons with disabilities. The FCC released radio spots by all five Commissioners, and videos in a number of different formats. There are videos that explain the DTV transition with special videos aimed at those with disabilities such as those with hearing problems. All the national radio spots, along with those for the Wilmington market and the videos, can be downloaded from the FCC's DTV Web site. The Commission is also planning on buying billboards in 45 markets, with the first billboards going up in Philadelphia, Tampa, San Francisco and Seattle.

In Washington, D.C., the Commission held information meetings on DTV converters at the FCC offices, with one occurring on May 28, sponsored by Washington, D.C. Congresswoman Eleanor Holmes Norton and the NAB; another one sponsored by the FCC was held on June 19.

As the Commission increases its efforts to promote the DTV transition, the Government Accounting Office released

## Greater Wilmington Area: Are Your TVs Ready For Digital?

**DTV.gov/Wilmington**  
**1-888-CALL-FCC**

FCC Visit DTV.gov THE DIGITAL TV TRANSITION  
What You Need To Know About DTV  
This message furnished by the FCC.

# Transition continues

By Tom Smith

a report in April on the status of broadcasters in completing the final preparations for the analog shutdown. The subtitle of the report summed up the GAO's conclusions: "Majority of Broadcasters Are Prepared for DTV transition, But Some Technical and Coordination Issues Remain." The GAO

reported what most in the industry already knew, that most stations had completed their final construction of their DTV facilities, but some stations had to wait for final channel allocations from the FCC before completing their construction and some stations had issues because they were to operate on a new channel, were going back to their analog channel or some stations with no current digital channel had to flash cut to digital operation on their analog channel. This report was basically a status report to Congress and did not take a critical view of the issues. This was in contrast to the GAO report last November that was critical of the FCC's and other government agencies actions concerning the transition. That report stated that no comprehensive plan existed for the DTV transition for the federal agencies. Its subtitle was "Increased Federal Planning and Risk Management Could Further Facilitate the DTV Transition." The GAO said that at that time, there was no coordination between the FCC, which was managing the DTV transition by setting deadlines for the broadcasters and reviewing their progress, and the NTIA which was charged with the DTV coupon program. The report stated that there was not a plan for measuring progress and results, and no program for managing risks and identifying potential problems before they occurred and targeting limited resources. The GAO discussed how risk management was necessary to avoid problems in high-stake efforts such as the DTV transition. They also noted that the FCC and NTIA had started education efforts, but noted that broadcasters and others in the industry had taken the lead. The GAO said that all efforts at the time needed better coordination.

Some members of Congress have proposed that some more money be allotted to the FCC and NTIA for DTV promotion, and that the DTV converter coupon program be made a little more flexible. The main sign that the promotion efforts for the DTV transition are working should become apparent as we near the Wilmington analog shutdown date.

*From FCC and GAO releases ([www.fcc.gov](http://www.fcc.gov), [www.gao.gov](http://www.gao.gov))*

## SBE Chapter of the Air

HamNet meets the second Sunday of each month at 0000 GMT on 14.205 MHz. Hal Hostettler 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](mailto: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](mailto:mclappe@sbe.org).

Exam Dates	Location Application	Application Deadline
November 7-17, 2008	Local Chapters	September 19, 2008



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## CHAPTER 24 SUSTAINING MEMBERS

### RECENT RENEWALS

Token Creek Mobile TV  
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WISC-TV 3  
Wisconsin Public Television  
WKOW-TV 27  
WMSN-TV 47  
WMTV-TV 15

Thanks to WISC-TV for maintaining the Web server for the Chapter 24 Web page and for providing copying and folding facilities for the newsletter.



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

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