



The Society of Broadcast Engineers

**Fox Valley Wisconsin, Chapter 80
2308 East Henry Street
Appleton, Wisconsin 54915-3547**

November 2008

The next meeting of Chapter 80 SBE will be at the Out of Town club at **noon** on November 18th
The program is going to be given by Pam Schoenecker of Graybar about IP based security equipment

Chairman's Corner

Welcome!

Our next Chapter 80 meeting will be on Tuesday, November 18, 2008 at noon at the Out O' Town Club in Kaukauna. Pam Schoenecker of Graybar will give an overview of Graybar's products and services and then focus on Internet Protocol-based security equipment and systems including: Power Over Ethernet capable cameras, monitoring software, and archive recording to servers and disk arrays. Mark your calendar and invite a friend or two. We had two events in October. The first was held on Friday, October 3, 2008, Chapter 80 along with student chapter 80.1 co-hosted the Taste of NAB 2008 Roadshow, presented by Larry Bloomfield, at the University of Wisconsin Oshkosh. A very special thanks to Larry and the Roadshow for hosting the lunch, and for another outstanding presentation. We also thank Student Chapter 80.1 and the University of Wisconsin Oshkosh for providing the facilities again. There were more than twenty different radio, TV and production technologies presented and discussed. In addition, there were lots of great door prizes. This is the seventh year for Taste of NAB Road Show, and the fourth time our chapter has hosted it. For more information about the Roadshow and the door prizes, visit the website at: www.tech-notes.tv/2008/2008-Itinerary.htm. I had a sign-up sheet at the September meeting, but only about

half that signed up actually made the drive to Oshkosh. With students and staff from the University, we had a total count of 39, but were down to half a dozen to share the door prizes at the end. Perhaps Friday is not the best day to hold this event. If we hold it again next year, I would prefer a weekday (Tuesday through Thursday), and a location in the Green Bay area.

Our second event was on Wednesday, October 15, 2008, with the WBA Broadcasters Clinic, and SBE National Meeting (October 14-16), at the Marriott West, Madison, WI. The event was excellent, as usual.

Here's a list of upcoming events:

Tuesday, December 16, 2008 (evening) – annual Christmas Party

Tuesday, January 20, 2007 – To be announced

Tuesday, January 17, 2007 -- TBA

I look forward to seeing you on Tuesday, November 18 at the Out O' Town Club.

Regards,
Keith M. Kintner

2009 SBE Certification Application and Exam Schedule

Application	Deadline	Location	Exam Date(s)
November 7-17, 2008		Local Chapters	Closed
February 6-16, 2009		Local Chapters	December 31, 2008
April 21, 2009	NAB, Las Vegas, Nev.		April 1, 2009
June 5-15, 2009		Local Chapters	April 17, 2009
August 7-17, 2009		Local Chapters	June 5, 2009
November 6-16, 2009		Local Chapters	September 18, 2009



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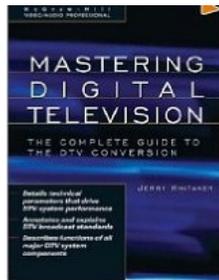
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Book Review "Mastering Digital Television" by Jerry Whitaker

Written for the practicing broadcast engineer, "Mastering Digital Television" starts out with a brief history of television (did you know that Russell Varian tested the first klystron in 1937?) and continues with the development of HDTV and the formation of the Grand Alliance. The next 3 chapters deal with principles of audio, video and transmission where such things as the CIE color system, audio compression systems and Longley-Rice Propagation are examined. Chapter 5 discusses DTV standards and the ATSC system. The audio and transport system as well as PSIP protocol is explored. The last chapter deals with implementing DTV and issues like audio video sync and electronic program guide data management. This book provides a good description of many of the new technologies involving DTV but I would have preferred replacing the history and principles sections with more detailed explanations of signal flows



and added a section on digital satellite equipment and digital ENG equipment *dd*

FCC adopts rules for Distributed Transmission Service .A DTV "distributed transmission system" employs multiple synchronized transmitters spread around a station's service area, rather than the current single transmitter approach. Each transmitter broadcasts the station's DTV signal on the same channel. Due to the synchronization of the transmitted signals, DTV receivers treat the multiple signals as reflections or "ghosts" and use "adaptive equalizer" circuitry to cancel or combine them to produce a single signal. Potentially, DTS can provide service to areas that a single-transmitter station would fail to reach due to obstructions that would block the signal coming from the single-transmitter site. It can provide more uniform signal levels throughout a station's service area, making indoor reception more reliable. Also, multiple DTS transmitters generally operate at a lower power than a single transmitter to achieve the same coverage and thereby reduce the likelihood of causing interference to neighboring licensees. *fcc.gov*.

NOTICE OF JOB OPENING WBAY-TV has an opening on its team for a Broadcast Maintenance Engineer WBAY-TV ABC Green Bay/Fox Cities is seeking a Broadcast Maintenance Engineer to execute equipment repair, maintenance and new equipment installation for the television station. Hours/Schedule: Full-time position. The hours are predominantly day time, but schedule may vary. Successful applicant must be flexible to schedule changes due to holidays, vacations, sick leave and breaking news. Also must be willing to work mornings, evenings and weekends. 24 hour on call availability.

QUALIFICATIONS:This position requires a television technical systems background, knowledge of operations, installation and maintenance. Including experience with Automation, Master Control and Production Switchers, Routers, Graphic Systems, Satellite, Electronic News Gathering, Intercom Systems, and Cameras. The successful applicant will have an in depth knowledge of digital and analog technologies as used in a broadcast environment, as well as a good understanding of IT networks, high power UHF Transmitters, broadcast equipment and microwave RF technology. The individual should have an Associate Degree from an accredited technical school or equivalent military training, with a minimum of three years of broadcast engineering experience. Responsibilities include setup and operation of live multi camera remote broadcasts and the operations of satellite and eng reception equipment. The successful candidate should be a team player with the ability to interact with others, demonstrate good communications skills, pc, written, and verbal with the station staff. Candidates must be capable of lifting a minimum of fifty pounds, possess a current valid Wisconsin driver's license. SBE certification is a plus. Interested candidates should send resume to: Greg Tadyshak, Chief Engineer WBAY-TV 115 S. Jefferson Street Green Bay, WI 54301 gtadyshak@wbay.com.

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SBE Takes New Direction in its Regulatory and Legislative Advocacy Efforts

The SBE has begun to chart a new course for the Society's government relations efforts and refocus its advocacy program to become more effective and member-focused. The SBE Board of Directors decided that a fundamental change in how the SBE participates in industry regulatory issues was needed in order to be more effective. The new direction will depend on collaboration with strategic partners in addition to our own FCC comment filings.

Presently, the SBE works with many partners including the National Association of Broadcasters, National Alliance of State Broadcast Associations, Maximum Service Television, U.S. Departments of Defense, Homeland Security and the Federal Emergency Management Agency, and has consulted with members and staff of both Senate and House committees. The SBE is capable of providing technical support and information to allied organizations with equal or greater political influence and thereby become more effective in achieving its legislative goals.

The SBE Board of Directors voted to amend SBE By-Laws to change the name of the committee that works on regulatory and legislative efforts from the FCC Liaison Committee to the Government Relations Committee, to better describe the work the committee was actually doing. The Committee has been charged with the development of an annual legislative agenda. This will be a board-approved, annual outline of the SBE's legislative goals. The board instructed that, "Committee actions should be directed, as much as possible, toward the interest and greatest impact of and to our members. Great care is to be taken to insure these issues are specifically related to our members and their concerns, possibly to the de-emphasis of 'industry' concerns as they may not have a close enough relationship to our membership's concerns." (adapted from the *SBE News*)

End of an era. **JVC has announced it will end production of stand alone VHS VCRs**-the last manufacturer to do so. JVC has manufactured more than 50 million VCRs to date. Combination VHS/DVD units will still be available

FCC ADOPTS RULES FOR UNLICENSED USE OF TELEVISION WHITE SPACES

On Election day the FCC adopted an Order that establishes rules to allow new wireless devices to operate in broadcast television spectrum on a secondary basis (referred to as television "white spaces").

The rules will allow for both fixed and personal/portable unlicensed devices. Such devices must include a geolocation capability and provisions to access over the Internet a data base of the incumbent services, such as full power and low power TV stations and cable system headends, in addition to spectrum-sensing technology. The data base will tell the white space device what spectrum may be used at that location. Wireless microphones will be protected in a variety of ways. The locations where wireless microphones are used, such as sporting venues and event and production facilities, can be registered in the data base and will be protected in the same way as other services. The Commission also has required that devices include the ability to listen to the airwaves to sense wireless microphones as an additional measure of protection for these devices. All white space devices are subject to equipment certification by the FCC Laboratory. The Commission also will permit certification of devices that do not include the geolocation and data base access capabilities, and instead rely solely on spectrum sensing to avoid causing harmful interference. For now, certification of any such device will require approval by the full Commission. The Commission will explore in a separate Notice of Inquiry whether higher-powered unlicensed operations might be permitted in TV white spaces in rural areas. (Complete text at www.FCC.gov)

Commissioner Martin said "Today's action was advocated by a diverse coalition of consumer groups, technology leaders and Internet pioneers. Opening the white spaces will allow for the creation of a WiFi on steroids. It has the potential to improve wireless broadband connectivity and inspire an ever-widening array of new Internet based products and services for consumers." **Commissioner McDowell** said "Our de-regulatory order will allow the market place to produce new devices and new applications that we can't even imagine today. Not only will the lives of millions of Americans be enriched by these new technologies, but I am confident that imaginative use of the TV white spaces could actually improve our safety as well." fcc.gov



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WBA and The WBA Foundation To Offer Two Exciting New Programs!!

Engineering Internship Grants (To Assist Stations With The Development of Future Engineers)

Engineering Fellowship Grants (To Assist Stations With Continued Training For Senior Engineers)

Engineering Internship Grant Program

The Wisconsin Broadcasters Association (WBA) and the WBA Foundation know there is a shortage of persons seriously interested in becoming qualified broadcast engineers, and we want to help develop such talent throughout Wisconsin by helping you to initiate an Engineering Internship at your station. This program will connect "Future" engineers to Wisconsin broadcasters by funding a "Summer Engineering Intern" position right in your workplace! Initially, up to ten grants at \$2,500 for a

two-month internship will be awarded to cover internship stipend and expenses. Internships are to run from June 15 - August 15, 2009.

Engineering Fellowship Grants. This program is meant to provide a stipend for "Senior" Broadcast Engineers serving Wisconsin member stations to acquire continuing education in broadcast engineering. Broadcast Engineers will apply directly to the WBA. The WBA Foundation will award five \$1,000 Grants statewide. These grants are to be used for continuing engineering education such as courses in Information Technology/Networking, Engineering Leadership/Management, Electrical Engineering/Transmission Courses, or other "new technology" training. www.wi-broadcasters.org

The SBE Chapter 80 Newsletter is published monthly. Members are welcome to contribute articles or ideas. Please have your submissions in by the 4th of the month to Dave Driessen or Bill Tessman.

<p style="text-align: center;">GEMCOM <i>Communications Consultant</i> <i>Broadcast, Sound, Voice & Data</i></p> <p>GARY W. MACH 1511 Biemeret St. Green Bay, WI 54304 (920) 499-4637</p>
