

January 2016

Society of
Broadcast Engineers
Chapter 24
Newsletter
Madison, Wisconsin

 **Next Meeting**

Tuesday, January 19

The Future of Routing, IP & 4K



A presentation by Utah Scientific will give us their take on the three hot topics affecting all things video:

- 4K and HDR/HFR video standards
- Transport using new 6G and 12G SDI over coax standards
- Transport using the various IP uncompressed and lightly compressed standards

Dutch Treat Dinner 5:30 PM
Culver's
900 E. Main Street
(intersection of HWY 19/113 and Raemisch Road)
Waunakee, WI



Meeting and Program at 7:00PM
Token Creek Mobile Television
501 Moravian Valley Road
(enter the door by the '501' address sign)
Waunakee, WI

See map on page 6

 **Coming Up**

Wed., Feb. 24 TBD & Nominations
Thur., Mar. 24 TBD & Nominations
Tues., April 12 TBD & Elections

WMTV to Build New Facility

>>> by Tom Weeden
Chief Engineer, WMTV

Gray Television Group, Inc., WMTV's parent company, announced on June 30th of last year that Gray had authorized the construction of a new television facility for NBC15. WMTV's current building was constructed in 1953 and has had several additions as operations expanded. The new building will be constructed on the existing property adjacent to the Beltline Highway.

Gray Television has retained Hendrick, Incorporated of Atlanta as the interior designer of the new facility. Hendrick recently completed a redesign of the Gray corporate offices in Atlanta. The architect for the project is Partners by Design of Chicago. The project manager selected is Huffman Facility Development, Inc., who was retained to represent the Overture Development Corporation in the design and construction of Madison's Overture Center. Michael Huffman was also the Owner's Representative for UW-Madison for the Kohl Center construction from 1996-1998. Civil engineering of the project is being handled by Ayres Associates, Inc. of Madison. The general contractor is J. H. Findorff and Son, Inc.

The Madison Plan Commission unanimously approved the design of the new building on November 16th. The building permit will be issued after nine city departments review and approve the application. As of this writing, six

>>> **WMTV** continued on page 4

AM TRANSLATOR WINDOW SET

>>> by Tom Smith

On December 23, the FCC released a notice (http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db1223/DA-15-1491A1.pdf) setting two windows for AM stations to apply to move FM translators up to 250 miles. This will allow AM stations to find and purchase translators that are located up to 250 miles away from the purposed translator site they wish to use to rebroadcast their AM programming. The first window is from January 29 to July 28, 2016 and is for Class C and D AM stations, which are the stations located on the six assigned local frequencies and daytime stations on the rest of the AM band.

The second window is for full-time stations on the Class A (clear channel) and Class B (regional) bands. That window is from July 29 to October 31, 2016. Stations may only apply for one translator, even if they already own FM translator rebroadcasting their AM programming. They may also change the FM translators frequency if needed to meet an interference conflict. The notice had a frequently asked question section to clarify some of the rules concerning the moving and applying for translators during these windows. Expect to see an increase in the sales of FM translators in the next few months.

 **In this Issue**

Meeting Minutes.....	2
Amateur Radio News.....	3
New Tower Light Rules.....	4
Certification Information.....	5



Chapter Contacts

Chair

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

Vice-Chair

Richard Wood
Resonant Results
W: 608-839-3950
rwoodsky@frontier.net

Secretary

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

Treasurer & Webmaster

Leonard Charles, CPBE
WISC-TV
608-271-4321
lcharles@wisctv.com

Past Chair

Kevin Trueblood

Committee Appointees

Program Committee

Steve Paugh, CPBE, CBNT
608-277-5139
spaugh@wisctv.com
*Volunteer for the
program committee!*

Membership / Newsletter Editor

Paul Stoffel, CPBE
608-263-2175
paul.stoffel@wpt.org

Sustaining Membership

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

Certification & Education

Jim Hermanson, CPBE, CBNT
services@jimhermanson.com

Frequency Coordination

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



Meeting Minutes

from the December 2015 Business Meeting

SBE Chapter 24 met for their annual holiday party at Fitzgerald's Restaurant on December 17, 2015.

HELP FOR LPTV AND TRANSLATORS

>>> by Tom Smith

On December 16, 2015, the FCC adopted a Report and Order (http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db1217/FCC-15-175A1.pdf) to assist LPTV and TV translators possibly find a displacement channel after the Incentive Auction repacking transition. LPTV stations and translators have a secondary status and are not guaranteed a place in the new smaller TV bands. With this notice, the FCC is giving some hope to those stations of finding a place after the repacking of the TV bands.

Translators and LPTV stations will have 12 months after the full-power 39-month transition period to complete construction of new facilities. Also for those translators and LPTV stations that have not completed their transition to digital transmission, that deadline has been extended to coincide with the transition to new facilities. This was due to concerns that stations may take on the burden of the expense to convert to digital and then not be able to find an alternate channel after repacking and have to cease operation.

LPTV and translator stations will also be allowed to voluntarily share a channel. Full-power stations will be allowed to apply for translators after the repacking to fill in for any lost coverage due to changes in signal contours due to interference protection needs. The final ruling in this notice is that after August 31, 2017, TV manufacturers

will no longer be required to put analog tuners in their TVs. The FCC is lifting this requirement because all full-power and Class A stations are already digital and two-thirds of the LPTV stations and three fourths of the translators are transmitting in digital.

Finally in the notice was a proposed rulemaking concerning the possibility of a LPTV station or translator, which is a secondary service that can be displaced, to share a channel with a full-power or Class A station which is a primary service and is protected.

After the new table of allotments is released so TV stations can be repacked, LPTV station and translators will still have the difficult task of finding a new channel to operate on. How many of them that will survive remains to be seen.



 BROADCAST SYSTEMS GROUP	
Bryan Nelson System Sales Executive twitter: @alphavideoaudio facebook.com/alphavideo	7690 Golden Triangle Drive Eden Prairie, MN 55344 Direct: 952.841.3304 Mobile: 612.819.7213 bryan.nelson@alphavideo.com www.alphavideo.com

 A Riva Technologies Co. Broadcasters One Stop Shopping Connecting Quality, Experience and Value www.josephelectronics.com	Christopher Annella 6633 W. Howard St. Niles, Illinois 60714-3305 Phone: 847-588-3800 800-323-5925 Fax: 847-588-3300 800-446-8366 Cell: 847-501-1584 chrisa@josephelectronics.com
---	--



Amateur Radio News

compiled by Tom Weeden, WJ9H

• George Marti, W5GLJ, who pioneered and manufactured remote pick-up (RPU) technology to allow radio stations to originate broadcasts away from the studio wirelessly — and lobbied the FCC to authorize its use — died on December 13 at age 95. Marti lived in Cleburne, Texas, where he had served as mayor for 12 years.

A radio station owner himself, he developed his first RPU unit to broadcast local high school football games back to the studio, bypassing the use of expensive and sometimes unreliable telephone lines. His company, Marti Electronics, also developed and sold studio-transmitter link (STL) equipment. An early Marti RPU is on display at the Smithsonian's National Museum of American History.

A radio amateur since his teens and a US Marines veteran, Marti also was a cattle fancier, banker, and philanthropist. He sold Marti Electronics in 1994 to Broadcast Electronics. In 1991, the National Association of Broadcasters honored Marti with its Radio Engineering Achievement Award. In 2010, the Texas Association of Broadcasters awarded Marti its Lifetime Achievement Award; he also was inducted in 2002 into the Texas Broadcasters Hall of Fame.

• Brian Justin, WA1ZMS, was scheduled to put his 600 meter Experimental Station WG2XFQ on the air on for a Christmas Eve commemorative transmission. The broadcast, on 486 kHz from Forest, Virginia, would mark the 109th anniversary of Reginald Fessenden's first audio transmission on December 24, 1906. Historic accounts say

Fessenden played the violin — or a recording — and read a brief Bible verse. It's been reported that other radio experimenters and shipboard operators who heard Fessenden's broadcast were astounded.

Fessenden's transmitter was an AC alternator, modulated by placing carbon microphones in series with the antenna feed line. Justin's homebuilt station is slightly more modern, based on a 1921 vacuum tube master oscillator power amplifier (MOPA) design.

A brief audio recording of reception of the 2013 WG2XFQ re-enactment broadcast can be heard at: <https://www.youtube.com/watch?v=1mU2pxg4d-g>

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



So long and Thanks!

As some of you may know, I have accepted a position at WSMV TV in Nashville, TN.

It has been hard for me to leave Madison and the great engineering community I have had the privilege to be part of. I will miss being member of an outstanding SBE chapter, with great programs at every meeting and a group engineers who do not hesitate in helping out whenever a fellow engineer needs assistance. The Wisconsin Broadcasters Association and the Broadcasters Clinic (The best regional show in the country!) support engineers like no one else. Thanks to the Clinic program committee along with Linda [Baun] and Michelle [Vetterkind]'s hard work.

So in closing, while I will be further away, I hope we can stay connected.

Bill Hamilton
608.957.2449



<http://www.sbe.org/sections/SBEUniversity.php>



5727 Tokay Boulevard
Madison, Wisconsin 53719

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



7847 BIG SKY DRIVE

MADISON, WISCONSIN 53719

(608) 833-0047 • FAX (608) 833-5055



WMTV
MADISON

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



CLARK
WIRE & CABLE

Shane Collins
Clark Wire & Cable Sales
Unit A
408 Washington Blvd
Mundelein, IL 60060-4401
(800) CABLE-IT
(847) 949-9944
Fax: (847) 949-9595
e-mail: sales@clarkwire.com
www.clarkwire.com

SCHARCH LLC

AVaya * Lucent Technologies * AT&T
Business Communications Service since 1983

1105 Middleton St., Madison, WI 53717
Tel: 608 831-2266 or 800 831-2266
www.scharch.net

Stan Scharch
stan@scharch.net



John C. Purvey
BAV Specialist
Broadcast & AV Solutions

john.purvey@belden.com
PHONE: 815.441.5298

447 Hampshire Lane
Crystal Lake, IL 60014

www.belden.com

NEW TOWER LIGHT RULES

>>> by Tom Smith

On December 7, the FCC released a notice (http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db1207/DA-15-1391A1.pdf) that amended the tower lighting requirements that are applicable to the Commission's Antenna Structure Registration System. This action was in response to the December 4 release of a notice by the FAA concerning the change in tower lighting requirement in order to reduce migratory bird deaths caused by the birds striking towers. The new requirements will affect new tower construction.

The new rules call for the elimination of the steady burning L-810 side lights on all towers over 350 feet. New towers over 350 feet will only require to have the flashing beacon lights. On towers under 350 feet, besides the flashing top beacon, these towers will still be required to have the L-810 side lights at mid tower, but these lights will also be required to be flashing. Existing towers may eliminate the L-810 side lights after requesting a new hazard determination.

The FCC noted that eliminating the side lights would reduce maintenance costs and should be easily disconnected. The steady red L-810 side lights are thought to confuse birds by appearing to be stars or some other light that night flying birds use for navigation. Flashing red beacons and strobes seem to have a limited effect of birds which is the reason for the changes. Stations may also realize a small savings in electricity by turning off the L-810 side lights.

>>> **WMTV** continued from page 1 of nine approvals have been received. Findorff plans to begin construction as soon as the building permit is in hand, although site preparation work is expected to begin shortly.

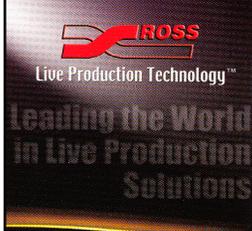
While it's still early in the equipment research and procurement process, our plan is to build out a technical core that is 4K-ready and video-over-IP capable. The goal is to have the building completed and occupied by September or October of 2016.

See photos on page 6

New Tower Lighting Regs Covered in January 21 SBE Webinar

Our latest webinar presents an overview of the changes made to the 70/7460-1L advisory circular that were released December 7, 2015, compared to the previous 70/7460-1K advisory circular. The changes affect new tower construction or tower alterations. This presentation will focus on the major changes all broadcasters should know. David Sheppard of Drake Lighting, Inc. will lead the webinar.

The completion of this webinar from Webinars by SBE qualifies for 1 credit, identified under Category I of the Recertification Schedule for SBE Certifications. The webinar registration is \$55 for members of the SBE and \$85 for non-members. Register online and get more information at the SBE website.



Brian Stumpf
Regional Sales Manager - Midwest USA

1266 Gils Way
Cross Plains, WI USA
53528-8837
Tel: (608)798-9578
Cell: (608)345-2544
Fax: (608)798-9577
bstumpf@rossvideo.com
www.rossvideo.com



5201 Femrite Drive
Madison, WI 53718
p 608.221.8888 f 608.221.9252
w avisystems.com

Tom Sibenaller
Systems Sales Specialist
CTS, CSTE
e tom.sibenaller@avisystems.com
d 608.807.1860 c 608.386.2611



Gepco International, Inc.
500 Thorndale Avenue, Suite F
Wood Dale, IL 60191-1267
Tel: 1-630-496-0486
www.Gepco.com

Matt Hayes
Inside Sales
mhayes@generalcable.com



8001 TERRACE AVE. | MIDDLETON, WI 53562
p: 608.831.7330 | f: 608.831.6330
order line: 800.356.5844
fullcompass.com

KEVIN PECKHAM
Product Manager
Ext. 1356
peckham@fullcompass.com

PRO AUDIO VIDEO A/V LIGHTING



John Salzwedel
President

501 Moravian Valley Road, Waunakee, Wisconsin 53597
Phone: (608) 849-4965 Fax: (608) 849-4035 Cell: (608) 235-9632
Web Page: www.tokencreek.com E-Mail: john@tokencreek.com

Antenna System Specialist



TV FM AM Troubleshooting Sweep Testing Infrared Testing

www.ResonantResults.com
Richard Wood (608)839-3950



WISC-TV
MADISON CBS 5

February 2016 Chapter 24 Newsletter Deadline:
Wednesday, February 3, midnight
paul.stoffel@wpt.org
edited using Adobe InDesign CC

Thanks to Leonard Charles for maintaining the Chapter 24 web site and to Steve Paugh for mailing the meeting reminder postcards.



Portable, Professional Audio

Sound Devices, LLC
E7556 Slate Rd. 23/33
P.O. Box 576
Reedsburg, Wisconsin 53959
www.sounddevices.com
Phone: (608) 524-0625
Fax: (608) 524-0655



Heartland Video Systems, Inc.

Mark Bartolotta

1442 Pilgrim Road
Plymouth, WI 53073
Tel (800) 332-7088
(920) 893-4204
Fax: (920) 893-3106
mbart@hvs-inc.com
www.hvs-inc.com
www.hvs-dtv.com

DIGITAL SOLUTIONS
Broadcast/Professional

Happy New Year!
 Here's **SBE Certification Exam** scheduling information for 2016.

<u>Exam Dates</u>	<u>Location</u>	<u>Application Deadline</u>
April 19, 2016	NAB Convention Las Vegas, NV	March 18, 2016
June 3-13, 2016	Local Chapters (Madison, WI Area)	April 15, 2016
August 5-15, 2016	Local Chapters (Madison, WI Area)	June 3, 2016
November 4-20, 2016	Local Chapters (Madison, WI Area)	September 30, 2016

When you are ready to take an SBE exam, please fill out the appropriate application (available at http://www.sbe.org/sections/Cert_App_Proc.php) and send it into the SBE National office (see address below). You will be notified once your application has been approved. Approximately 3 weeks before the exam time, your local certification chairman will receive a list of applicants in his/her area. He/she will then contact those applicants to schedule a date, time and place for the exams. The exams will be mailed back to the National office for grading. The pass/fail grades will then be mailed directly to the applicants.

You may mail, email or fax your applications to:

Megan E. Clappe
 Certification Director
 9102 N. Meridian St. Suite 150
 Indianapolis, IN 46260
 317-846-9120 Fax
mclappe@sbe.org



SBE Bookstore



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



http://www.sbe.org/sections/cert_exam_prep.php



The Association for Broadcast and
 Multimedia Technology Professionals

© 2016 by SBE Chapter 24, Inc. Views expressed herein do not necessarily reflect the official positions of the Society, its officers, or its members. SBE Chapter 24, Inc. regrets, but is not liable for, any omissions or errors. The Chapter 24 Newsletter is published twelve times per year. Other SBE Chapters are permitted to use excerpts if attributed to the original author, sources, and SBE Chapter 24.



CHAPTER 24 SUSTAINING MEMBERS

Recent Renewals:

Sound Devices, LLC
 WKOW-TV 27

Thanks to all our Sustaining Members:

- AVI Systems
- Alpha Video
- Belden, Inc.
- Clark Wire and Cable
- Full Compass Systems
- GEPSCO International, Inc.
- Heartland Video Systems
- Joseph Electronics
- Resonant Results, Ltd.
- Ross Video
- Scharch Electronics
- Token Creek Productions
- WISC-TV 3
- WMTV-TV 15
- WMSN-TV 47

WMTV New Building Architectural Renderings



ROADWAY RENDERED PERSPECTIVE



ENTRANCE RENDERED PERSPECTIVE

January Meeting Location: Token Creek Mobile Television

