



CHAPTER 122
SOCIETY OF
BROADCAST
ENGINEERS

*Serving the Public through
Quality Broadcast Engineering*

December 2014

SBE Chapter 122 Meeting Minutes 11/13/2014

Meeting begins at 12:28pm 8 Members present

President Melissa Limpose begins the meeting by asking that the October 2014 meeting minutes as printed in the newsletter are accepted.

Wes Boyd moves to accept, Bill King seconds the motion.

Reports

Treasurer Report: November

Collection from Members \$8.00

Expenses: None

Checking Gross Balance \$327.69

Savings Account Balance \$1205.14

October Dividend .05

Nov 1 Savings Balance \$1205.19

Frequency Coordination: No Requests Low or High Bands

Certification: Dave Brett proposes chapter participation in HD Radio Webinar on Feb, 2 2015.

EAS: Wes Boyd discusses proposed OH EAS plan that was presented at OAB conference last month.

Old Business None

New Business Officer nominations for 2015:

For President: Melissa Limpose nominates Wes Boyd, Bill King seconds the nomination.

For Vice President: Wes Boyd nominates Dave Brett, John Clarke seconds the motion.

For Secretary: Wes Boyd nominates Bill King, Melissa Limpose seconds the motion.

The other slate of officers are re-nominated for another term.

Bill King motions to adjourn the meeting, Kip Button seconds the motion Meeting ends at 12:54 pm

Stolen from: *Broadcasters' Desktop*
Resource

by Barry Mishkind (www.thebdr.net)

11/24/14 - **Continental Electronics has ended 24/7 parts and support hours.**
The change, is designed to "improve the support experience."

All calls outside of normal business hours (M-F, 8A-4:30P, Central time) will be returned the next business day.

BDR Comments: *Although many of us learned transmitter troubleshooting from Ken, Dave, Richard, J. Fred, and John, few are actually doing it at zero dark 30 any more. The good news is that CE will continue to provide tech support and parts for their products - just during business hours.*

12/4/14 - A North Carolina station was knocked off the air when thieves broke in and wrecked both of the station's transmitters, ATU, and other copper. Some \$50k in damage put WCIS-AM off during a fund-raising event, until a replacement transmitter can be found and repairs made. (thanks to Stoney Owen/WKBC)

12/2/14 - **73.1206** - There have been several fines issued, from time to time, to stations that continue to ignore the FCC's Telephone Broadcast Rule that requires notifying a caller that their conversation will be recorded - before the recording begins. The Commission continues to escalate fines related to this practice. This week KTVX-DT in Salt Lake City received an Order for \$35k for broadcasting a recording twice. It did not help that the station did not respond to the FCC when directed.

Thanks to Barry and the BDR, a great source for the latest news of the industry, a weekly e-mail report, and FREE !



SANTA says

DON'T Forget..

The end of the 4th Quarter
You have till Jan 10th for added material to the Public Files !

Monthly Meeting

Café 422

8586 South Ave Boardman, Oh 44514 330-629

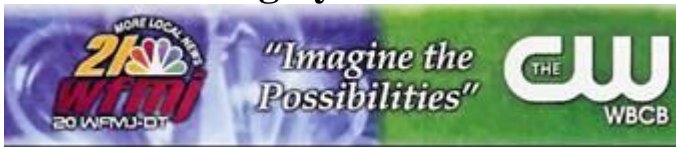
2422

(about a mile south of the Clear Channel radio complex)

(OR 680 to Western reserve Exit, turn right/west. Then turn right/north on South Avenue)

Meeting: Dec 11th , 2nd Thursday Monthly Starting just after
12 noon

Passed along by Bob Flis CE



Wireless Mic Frequencies Getting Squeezed

After the FCC conducts its incentive auction of 600 MHz TV spectrum in early 2016, the amount of available spectrum for wireless mic operation — in diminishing supply now — could become even scarcer. Less spectrum means fewer unused TV channels for wireless mics and a whole series of other wireless devices generally lumped into the wireless mic category, including wireless intercoms, IFB cueing systems and in-ear monitors used by musicians and other entertainers. In addition, switching to new equipment could be costly for broadcasters.

By [Phil Kurz](#)

TVNewsCheck, December 4, 2014 9:34 AM EST

The crowd on hand Monday evening (Dec. 1) to see a World AIDS Day concert put on by a Bono-less U2 fronted by Bruce Springsteen and Cold Play's Chris Martin wasn't the only thing tightly packed in New York City's Times Square.

The airwaves dedicated to wireless mic systems used by the performers and production crew were so jammed that concert organizers called Louis Libin, SBE frequency coordinator for spectrum under 1GHz in New York City, mere hours before the event desperately looking for any bit of spectrum that could be enlisted to provide a measure of relief.

"It's just insane in Times Square because there is so little available wireless mic spectrum," Libin. "It became very painful Monday night. We had to do a lot of jumping around and finding out [what spectrum was available at any given moment] and do real-time frequency coordination."

The concert, billed as "U2 Minus 1 — Live in New York Tonight" due to Bono's inability to perform following a bike accident, is just one of the most recent examples of how difficult it is becoming to find available frequency for wireless mics. "This issue is nationwide, and things aren't going to get any easier after the repack," Libin says.

For applications like ENG as well as sports and entertainment production, broadcasters generally use wireless mics that operate on the unused UHF TV channels in each market.

After the FCC conducts its incentive auction of 600 MHz TV spectrum in early 2016, the TV stations will be repacked into a tighter band, which will have the effect of congesting the remaining UHF TV band even further.

Less spectrum means fewer unused TV channels for wireless mics and a whole series of other wireless devices generally lumped into the wireless mic category, including wireless intercoms, IFB cueing systems and in-ear monitors used by musicians and other entertainers.

Large entertainment and sporting events reveal the magnitude of the problem. "A typical major broadcast event that's aired on primetime TV uses upwards of 10 UHF channels to create that content," says Joe Ciaubelli, head of spectrum affairs at pro audio equipment maker Sennheiser.

"Any NFL game will use more than 100 wireless microphones, and those 100 wireless mics all need spectrum. Typically that broadcast will use eight, 10 or 12 television channels to operate those mics," he says.

The other major TV-related use of wireless mics is ENG, which is far different from how the devices are used for sports and entertainment productions. Unlike those applications, ENG is spontaneous, not scheduled, which means making provisions for temporary use of available spectrum is impractical. Similarly, news can occur anywhere, whereas the venue of a sporting or entertainment event is known far in advance.

To guarantee there is at least some spectrum for wireless mics used for these random newsgathering situations, the FCC has reserved two 6 MHz TV channels in each market, although the specific channels vary from market to market.

However, all of this will change following the TV spectrum repack, says Shure spokesman Mark Brunner. Gone will be most of the unused 600 MHz spectrum as well as the two channels dedicated to ENG wireless mic use.

In place of those two channels will be a yet-to-be determined portion of the so-called 12 MHz duplex gap being created to separate uplink and downlink cellular signals.

“A portion of this duplex gap will be dedicated nationwide to broadcast licensees, and that will be the same set of frequencies, hopefully, nationwide,” Brunner says. “That was kind of a big victory [for the broadcast community].”

However, Sennheiser is concerned the duplex gap will be unreliable, Ciaubelli says. Tests the company conducted in Europe of a similar duplex gap revealed the unused spectrum between the cellular uplink and downlink channels is subject to a lot of out-of-band emissions.

“By its definition, the duplex gap is a buffer zone so the uplink and downlink don’t interfere with each other. Our fear is that operating in the duplex gap will not give professionals the reliability they need, especially for spontaneous newsgathering,” Ciaubelli adds.

In September, the FCC adopted a [Notice of Proposed Rulemaking](#) seeking guidance on how it can accommodate the long-term needs of licensed wireless mic users, including TV broadcasters, broadcast networks and TV program and motion picture producers, as well as unlicensed users, such as churches, local theater companies and others, in a post-repack environment.

The 83-page notice seeks comment on a variety of topics, such as new bands that can be used, ways to provide better access to remaining unused TV channels and bands dedicated for use by other devices that can be shared by wireless mics.

One alternative under consideration is relaxation of some existing rules that could make the VHF band more suitable for wireless mics, Brunner says. “The high portion of 900 MHz is used exclusively by broadcasters now. There’s a potential to expand that from today’s 944-952 MHz to 941-960 MHz.

“There’s also discussion of the 1.4 GHz band, which is used often under special transmission authority for sporting events. That’s actually federally held spectrum that is used for aviation testing, but at specific locations, not nationwide,” he says.

While pleased that expanded use of 1.4 GHz is on the table, Ciaubelli points out that using the higher band has its drawbacks.

“It takes five times more power. If you had a transmitter operating in UHF at 100 mw that could transmit a half of mile, you basically need 500 mw of output power to operate a 1.4 GHz wireless mic at that same distance,” he says. “For a lot of applications that will be fine, but for certain uses it is a distinct disadvantage.”

The TV band repack and subsequent dislocation of wireless mics from unused 600 MHz UHF channels will take a financial toll on broadcasters. Ciaubelli says the change to post-repack wireless mic allocations will make obsolete at least half of broadcasters’ existing systems.

Both Sennheiser and Shure have filed petitions with the FCC asking the agency to ensure broadcasters are compensated for wireless mic systems that will be affected by these changes.

“We are asking the FCC to invoke their Title III authority like they did in the past to compel auction winners to pay incumbents, such as in the case of Sprint-Nextel in the 2GHz BAS transition,” Ciaubelli says.

“We feel that to single out wireless microphone owners to be subjected to such an expense is, quite frankly, unfair.”

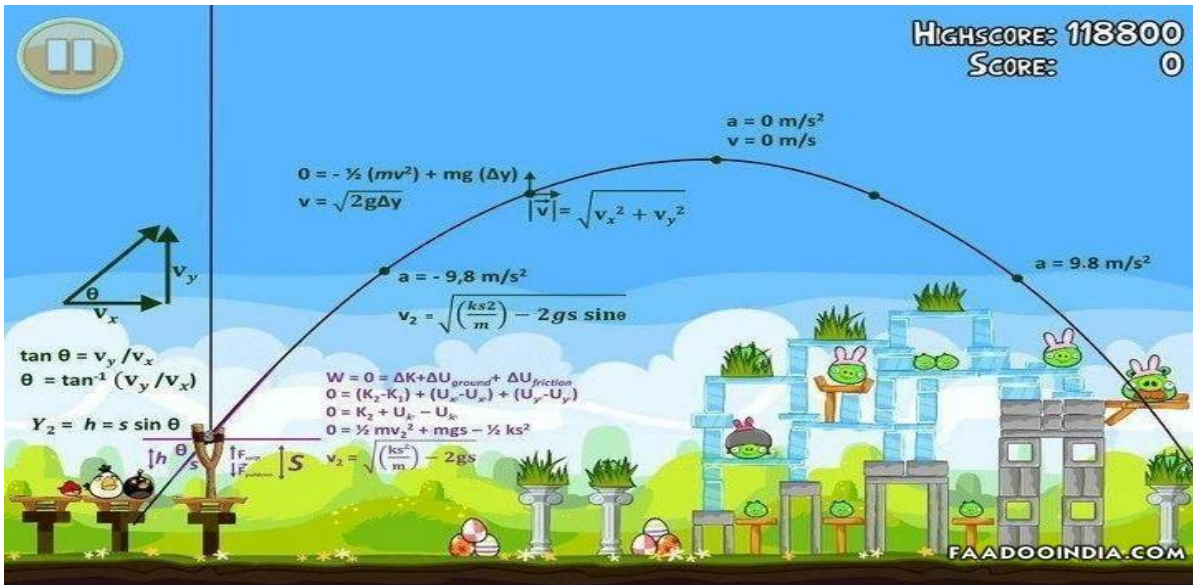
Local EAS 2014

DEC 2014

NE Ohio

12/4 1100 12/11 0450 RMT 12/18 1200 12/27 0830 12/30 1300

Western PA 12/19 0450 RMT EM Net



How Engineers play ANGRY BIRDS !



Chapter 122 Officers for 2014

President	Melissa Limpose	
V. President	Wes Boyd	330-779-8142
Secretary	John Clarke	
Treasurer	Mike Orto	330-207-3881
Financial Sec	Bob Flis	330-744-8611
Certification	Dave Brett	

Frequency coordinators:

Under 1 GHz	Wes Boyd	330-779-8142
Over 1 GHz	Bob Flis	330-744-8611

Newsletter Ed:	Wes Boyd	330-779-8142
SBE Chapter	Website:	www.sbe122.org

