Lake County Ham Radio Journal

DJ Mike Fresh rides a train to Bangkok on WWLC's Morning Zoo

The Official Newsletter Of

WeLCARS

W9WLC

www.welcars.org

Stoned Monkey VHF

Amateur Radio Club

N9UHF

www.stonedmonkey.org

In This Issue

Upcoming Events

WeLCARS Meetings and Events

General Meeting
Friday April 3 - 7PM
Fox Lake Community Center

VE Session
Friday April 10 - 7PM
Fox Lake Community Center
23 South St., Fox Lake

**Project Meeting
Coax Connectors**
Friday April 17 - 7PM
Fox Lake Community Center

Other Events

Lake Co RACES Meeting
April 6 - 7PM
Lake County EOC

MCWA Meeting
April 7 - 7:30PM
Nunda Township Hall

McHenry Co RACES Meeting
April 28 - 7PM
McHenry County EOC

Hamfests

AES Superfest 2009
April 3 & 4 - Milwaukee, WI
www.aesham.com

Antique Radio Club of IL
April 19 - Carol Stream, IL
www.antique-radios.org/

Spring Swapfest
May 2 - Cedarburg, WI
www.ozaukeeradioclub.org

DeKalb Hamfest
May 3 - Sandwich, IL
www.w9icu.org

Contest Calendar

VHF Sprint Sprints
144MHz Apr 6 7PM-11PM
222MHz Apr 14 7PM - 11PM
432MHz Apr 22 7PM - 11PM
902+ MHz May 2 6AM - 1PM
50 MHz May 9 6PM - 10PM
Phone, CW
www.sysadnet.com/
vhfsprintrules.htm

Japan Int'l DX Contest
Apr 11 2AM - Apr 12 11AM
1.8-28 MHz CW
jidx.org

Michigan QSO Party
Apr 18 11AM - 11PM
3.5-28 MHz Phone, CW
www.miqp.org

Florida QSO Party
Apr 25 11AM - Apr 26 7PM
7-28 MHz   Phone, CW
www.floridaqsoparty.org

Nebraska QSO Party
Apr 25 12PM - Apr 26 12PM
1.8-144 MHz   Phone, CW,
Digital
www.hdxa.net

MARAC CW and SSB Contests
May 1 7PM - May 3 7PM
3.5-432 MHz   Phone, CW
www.countyhunter.com

On the Air

Informal Net / Radio Tradio
Sundays 8PM
KB9I Repeater
145.41 (-) PL 107.2

WeLCARS Goes from Amateur to Professional
Bob Frapples, WD8KHE

Tired of being labelled radio "amateurs," the members of the Western Lake County Amateur Radio Society have decided to turn professional. The club has formally incorporated and is now operating a radio station out of Joe Serocki's basement under the call letters WWLC and is broadcasting at 97.8 MHz on the FM dial.

WWLC's Basement Studio

"DJs these days are terrible," Joe said when asked to comment on the change, "And they called US amateurs? Sheesh!" Joe and several other club members took to the streets in recent weeks to rescue yards of shag carpeting and lava lamps to give the group's basement studio the proper atmosphere.

"Turning pro has been hard work," Chris N9YH commented. "A lot of us had to quit our day jobs because of the time committment involved." Chris added that many of the members are now sleeping in Joe's basement to avoid the wrath of their XYLs after quitting their jobs. Understandably, Georgette KA9VPG is less than happy about the situation. "They're constantly asking me to cook bratwurst! For heaven's sake - it's 8 AM on Sunday!" Georgette also commented that the smell starting to come from the basement was terrible. "It's like the monkey house at the zoo down there," she added.

More VHF Contest Rule Changes
From the AFRL

The AFRL recently announced new changes to their VHF contest rules for this year's June and September VHF contests. Based on the number of complaints by members who felt the contests were inherently unfair because everyone didn't have an equal chance to win, the AFRL has decided to add categories to the contest so all participants would be evenly matched in their own category.

"We heard that not all locations were equal, due to do different elevations and population density what have you," Sean Kuzco WX9XX said. "So we decided to make the field truly even: from now on instead of competing in different power categories or sections, each callsign will be a category." Kuzco added that in these times, it was more important to make all competitors feel good about themselves and make sure nobody felt as if they "lost" the contest. "After all," he said, "isn't that why they don't play dodge ball in school?"

Kuzco went on to say that the scoring formula has also changed. Participants receive 1 QSO point for making any number of QSOs, times a final multiplier of 1,000,000. "It simplifies things," Kuzco said, "Everyone was getting so confused by the grid squares and the multipliers and the different band values. Sheesh - even I couldn't keep track of it all." When asked if near constant e-mails with questions about scoring from a certain Affiliated Club Coordinator from the Illinois section prompted the change to more easily understood scoring, Kuzco offered no comment.

Still, some VHF operators were unhappy about the change. "Are you kidding?!? Those rovers in California will still win!" Imma Wyner WY9ER said. Wyner said she immediately petitioned her VUAC representative to change the rules to reduce the multiplier to 0 for any California rover stations. "The VHF contest community will only be happy when California rovers don't score any higher than 0 points," she said.

FCC Denies Petition to Increase Size of VE Question Pools

from the ARRL

In April 2008, Michael Mancuso, KI4NGN, of Raleigh, North Carolina, filed a petition with the FCC, seeking to increase the size of the question pools that make up the Amateur Radio licensing exams. Mancuso sought to increase the question pool from 10 times the number of questions on an exam to 50 times more questions. On March 19, 2009, the Commission notified Mancuso that it was denying his petition.

In his 2008 petition, Mancuso claimed that the current question pool is too easy to memorize and "that there has been a significant increase in the number of Amateur Radio operators receiving their licenses over at least the last decade or more who do not appear to possess the knowledge indicated by the class of license that they have received. [One wonders how exactly Mancuso would know, since it appears he's only been licensed since 2006. - Ed.] Most discussion about this topic, both on the air and on Internet forums, generally refers to these widespread observations as the 'dumbing down' of Amateur Radio. It has been widely assumed that the cause of this observed situation is based upon the subject material addressed by the license examinations, that the material requirements specified for the examinations does [sic] not meet some minimum level of knowledge expected by some or many in the Amateur Radio community." [Anybody else see the irony of the grammatical error in this petition? - Ed.]

The FCC pointed out to Mancuso that each applicant for a new or upgraded Amateur Radio operator license "is required to pass a written examination in order to prove that he or she possesses the operational and technical qualifications required to perform properly the duties of an amateur service operator licensee, i.e., that he or she is qualified to be an amateur service licensee."

The Commission summed up Mancuso's petition, saying, "You argue that the current question pool size is no longer adequate, because online practice examinations enable examinees to memorize a question pool without fully comprehending the subject matter being tested. Consequently, you propose to increase the size of the question pools, in order to hinder memorization."

The Commission concluded that Mancuso did not present grounds for the Commission to amend its rules: "As noted above, the purpose of the examinations is not to demonstrate an applicant's comprehension of certain material, but rather to determine whether he or she can properly operate an amateur station. Moreover, your contention that there has been 'a significant increase in the number of Amateur Radio operators…who do not appear to possess the knowledge indicated by their class of license' is not supported by any data or facts."

The FCC pointed out to Mancuso that the Commission's Rules only dictate the minimum number of questions for each question pool for the three Amateur Radio license classes. This, the Commission told Mancuso, "does not prevent the National Conference of Volunteer Examiner Coordinators (NCVEC) from increasing the number of questions in a question pool should it decide that this is appropriate. We conclude, therefore, that the petition presents no evidence of an existing problem or other reason for a rule change."

ARRL Chief Executive Officer David Sumner, K1ZZ, said that while he agreed with the Commission's decision, he disagrees with the rationale behind it. "The International Radio Regulations require that administrations verify the operational and technical qualifications of prospective amateur licensees, using Recommendation ITU-R M.1544 for guidance," he said. "The present examinations confirm to this requirement."

New Revised Edition of "Experimental Methods in RF Design"
From the ARRL

The revised first edition of "Experimental Methods in RF Design" is now available from the ARRL. Co-written and updated by Wes Hayward, W7ZOI, Rick Campbell, KK7B, and Bob Larkin, W7PUA, "Experimental Methods in RF Design" explores wide dynamic range, low distortion radio equipment, the use of direct conversion and phasing methods and digital signal processing. Use the models and discussion included in the book to design, build and measure equipment at both the circuit and the system level.
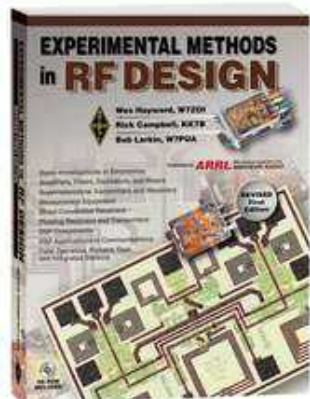
Contents of "Experimental Methods in RF Design" include:
* Basic Investigations in Electronics
* Amplifiers, Filters, Oscillators and Mixers
* Superheterodyne Transmitters and Receivers
* Measurement Equipment
* Direct Conversion Receivers
* Phasing Receivers and Transmitters
* DSP Components
* DSP Applications in Communications
* Field Operation, Portable Gear and Integrated Stations

A follow-up to the widely popular "Solid-State Design for the Radio Amateur" (published in 1977), "Experimental Methods in RF Design" includes a CD-ROM with design software, listings for DSP firmware and supplementary articles. It is available from the ARRL for $49.95.

Strange But True File: FCC Corrects Call Sign Error
From the ARRL

In October 2006, Peter Birk (formerly WB2DCG) of Virginia Beach, Virginia, applied for a vanity call sign, K4ZL, under the FCC's Vanity Call Sign Program. This call sign was previously held by Elmer B. Jackson, Jr of Lavergne, Tennessee. Jackson held this call sign since before 1978; it was set to expire June 11, 2008. In October 2006, the Commission received notification that Jackson had passed away February 14, 2004, so the FCC canceled his license as of this date. More than two years after the date of Jackson's death, Birk applied for and received K4ZL.

In June 2008, Jackson notified the FCC that he was still very much alive and that he wished to renew his license. According to the FCC, based upon information they had received, "it appears that the call sign K4ZL was made available under the vanity call sign system as a result of a defective cancellation of the license originally held by Jackson. Further review determined that the information submitted to the Commission in 2006 pertained to a different person with the same name."

On Friday, March 27, Birk told the ARRL he had no idea Jackson had not passed away. "There was no way for me to know that Elmer Jackson was not dead at the time I applied for K4ZL," Birk said. "In fact, the FCC believed he was dead, as well."

On March 23, the FCC released an Order Proposing Modification and concluded that cancelling K4ZL in 2006 "was defective" and that the call sign should not have been made available in the vanity callsign pool. To correct this error, the FCC "propose[s] to exchange K4ZL with the callsign previously assigned to Birk's amateur radio station, WB2DCG: and concurrently to assign call sign K4ZL back to Jackson's license, which was reinstated under call sign AJ4JT."

4

Review of Sony Wireless Stereo Headphones for Ham Radio

Keith Schreiter - N9QDS
Vice-President, WeLCARS

A friend of mine who is not a ham came down to my shack and said, "For a wireless radio setup, I never saw so many wires in my life." Not that wireless headphones would prevent me from hanging myself, but there would at least be one less wire in the shack. Enter the Sony model MDR-RF970RK Wireless RF Headphones.

This headphone system utilizes signals in the 900 MHz band. It has 3 selectable channels: 915.5, 916.0, and 916.5 MHz FM. (I think this should count for a ½ point in a contest for each contact made using this band because it is ¼ duplex commutations, half of a half duplex (A new point system) in the microwave bands) [Keith also enjoys listening to his Grateful Dead albums with these headphones. - Ed.]

There are two units to this system: the headphones and the charging cradle. The system employs a contactless charging method that requires no terminals by electromagnetic induction by placing the headphones in the cradle. Sixteen hours of charge time gives you twenty-two hours of operation.

The charging cradle is the transmitter with a 12VDC wall wart powering the unit: there are also connectors for the audio input: right and left RCA phono connectors as well as a 2.5 mm stereo jack. There is a supplied cable to connect to your receiver of choice. If you like to build your own cables you can make a custom "Y" adapter to connect two radios, one in the right ear and one in the left ear, using your own engineering abilities. There is a

Sony Wireless Headphones

status LED: solid red indicates the battery charge is good, flashing red means the battery is low and needs a charge - better run to the radio room as to not miss that great conversion or rare DX, but after twenty-two hours of use you will probability be banging your head into walls.

The headphones have a switch in the self adjusting head band that is activated when placed on your head, turning on the headset: this is so you can save the charge on the nickel-metal hydride AAA batteries when not in use and not placed in the charging cradle. The headphones also have a volume control. They are lightweight and comfortable to the point you forget you have them on ["What? I can't hear you, Marlene!" – Ed.]: mass is 300g (10.59 oz).

I have been using these in my shack and around the house listening to my nets on HF and have gone outside with them. The maximum range is listed at 150 feet, but I have gone up to 250 feet with no problems. I have been transmitting at 1500 Watts with no problems with RF interfering with the headset. You can set it up so you are listening to a HF net in one ear and the Radio Tradio net on the 145.410 repeater in the other. Or you can do dual diversity listening on the HF bands with two receivers or two VFOs. For me, I can work at the work bench and listen to whatever. Cost was $104.99 at Best Buy. I rate these 5 out of 5. Also remember when looking for wireless headphones infrared (IR) does not penetrate walls like radio frequency (RF) which limits you to the same room. Spring is coming, so go out to the front porch and listen to some radio.

Flexibility of an HSMM Network

Steve Lampereur - KB9MWR

Washington County Oregon ARES has a YouTube video that shows what HSMM networks can provide for ARES using D-STAR's high speed data on 23cm. It should be clarified that this drag and drop flexibility is not exclusive to D-Star. It's a network file sharing protocol being employed between the laptops being used. Any TCP/IP based network can support this.

Yessj: What's the range on this thing? It looks quite similar to a wireless peer to peer lan!

W7NWH: One big difference HAMS can use greater power with a upside of distance and robustness. Hams can use up to 1500 watts of power. Where your local wireless network is measured in millawatts to watts. With high gain antennas and lots of power ranges can exceed 50-80 miles. And that's peer to peer! Try that with your wireless LAN! Idea is this can provide emergency backbone for a LAN that is down in an emergency. Not super fast, just robust and proven!

Above are some of the YouTube video comments. W7NWH is trying to make this pricey D-Star sound like it's fundamentally superior to common Wi-Fi. Yes, hams can run more power, but that likely won't accomplish much more. Microwave propagation is microwave propagation. Height is the key item. If you don't have it, the 10 watt D-Star radios at 1.2 GHz won't yield much better paths than the under 1 watt paths that you could do with Wi-Fi. I don't know of any 1.2 GHz amplifiers to run more than the stock Icom ID-1 let you anyway. They have been several well publicized examples of 20-30 mile 802.11 links, and one 72 mile path! One with a ham twist was published in the July 2005

QST, titled "IEEE 802.11 Experiments In Virginias Shenandoah Valley."

One thing I've noticed is that command posts love telephones and fax machines. Pictured to the left you see an $30 analog telephone adapter. Talk about seamless to the emergency manager!

Another interesting and smart idea when it comes to repeater linking is to use analog radio adapters and link the repeaters over your HSMM backbone. Most repeaters are on decent tower sites already so linking such sites over microwave HSMM links should be very feasible. Now your linking channel is not just capable of voice, but can act as a high-speed backbone.

IRLP and Echolink linking are pretty prominent and well understood. In many cases there may be multiple repeaters in the same geographic area all linked using such common VOIP networks. With HSMM backbones you can off-network link these. This is very EmComm friendly in the event backhoe takes out internet to most of an area.

Coax Connector Project Night

Mark your calendars for Friday, April 17, at the Worldwide Headquarters. WeLCARS and the Stoned Monkeys plan to have a session for putting connectors on coaxial cables. Wendell N9REP plans to give a bit of a talk and show a video before the group gets to work on building cables and jumpers for the club and personal use. We'll be sharing different methods people have for putting connectors on coax, including the often dreaded N-connector and the PL-259. Bring your coax prep tools, like a sharp knife, a soldering iron, wire cutters, and some solder.

Cool Stuff You Should Buy

Chris Burke - N9YH

BASIC Stamp Too Basic? Try This...

The Linuxstamp is an open source processor module based on the Atmel AT91RM9200 processor. All development can be done with the USB device port which is connected (via USB/serial chip) to the debug serial port on the Linuxstamp. The board's processor, a 180 MHz Atmel AT91RM9200 system-on-chip, integrates an ARM9 CPU core (with MMU) along with controllers for USB host and device ports, 10/100 Ethernet, MMC/SD card interface, sync/async serial ports, SPI (serial peripheral interface), and more.

As its name implies, the Linuxstamp runs Linux. At least two distributions are currently available: a minimal filesystem that boots and runs entirely from within the Linuxstamp's 8MB flash and 32MB RAM memory; and a more complete, debian-based filesystem that requires an SD card to supplement the board's on-board flash. ($120 www.linuxstamp.com)

Uniden BCD396XT Scanner Released

ScannerMaster.com reports to be shipping Uniden's latest and greatest portable scanner: the BCD396XT.   The 396XT represents an incremental improvement over the 396T, though they're curiously being sold for exactly the same price at the moment ($495 plus shipping).   The BCD396XT has 25,000 dynamically allocated memories, meaning you're not limited to a certain number of memory bands; and also features location based scanning when hooked up to a GPS antenna - a Uniden only feature and the first time it's been offered on a handheld scanner.   Those of you in the market for a new scanner might want to consider waiting for a price drop on the BCD396T if you don't need the GPS functions.

The BC346XT is the 396XT's "little brother" and sells for $219. The price is a lot more attractive, but the 346 isn't capable of monitoring the latest digital trunking systems, such as the state's Starcom21 system, Northwest Central Dispatch (the Buffalo Grove and Arlington Heights area), and the new system McHenry County is putting online.   The 346 features 9,000 memories and location based scanning.
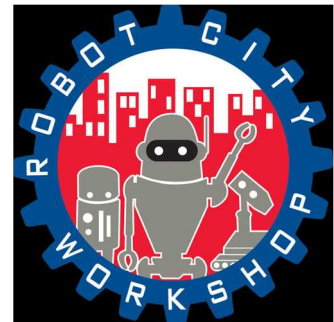
RobotCity Workshop

Not a thing to buy, but a place to go: RobotCity Workshop is a new store in Chicago's Lakeview neighborhood just north of Belmont on Sheffield. The store has everything robot from kits to classes on how to build your own robots - they even have those Roomba robot vacuum cleaners. Our intrepid field reporter Mike AA9IL reports they will soon be stocking microcontrollers.

Domo arigato, Mr. Roboto. www.robotcityworkshop.com