



Lake Co. Leprechaun Ham Radio Journal

March 2009

www.hamradiojournal.com



Another lad learns the finer points of electronics and radio during N9IFG's merit badge classes

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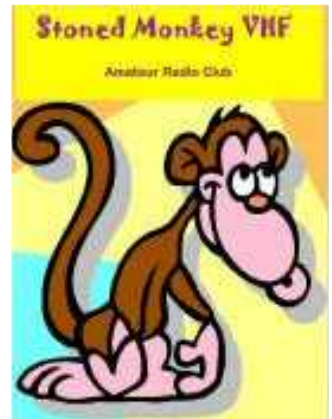
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Newsletter Of
WELCARS



W9WLC
www.welcars.org



N9UHF
www.stonedmonkey.org



EI8BS
Blarney Stone ARC

Upcoming Events

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Keith - N9QDS
Steve - KB9MWR
Lucky the Leprechaun

WeLCARS Meetings and Events

VE Session

Friday March 13 - 7PM
Fox Lake Community Center
23 South St., Fox Lake

Social Meeting

Friday March 20 - 7PM
Dino's Den
88 E. Grand Ave., Fox Lake

Project Meeting

Friday March 27 - 7PM
Fox Lake Community Center

Hamfests

AES Superfest 2009

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

Spring Swapfest

May 2 - Cedarburg, WI
www.ozaukeeclub.org

Dayton Hamvention

May 15-17 - Dayton, OH
www.hamvention.org

Local Repeaters

2 meters

145.41 (-) PL 107.2 KB9I
147.03 (-) PL 127.3 WB9RKD
147.18 (+) PL 127.3 K9IQP

1.25 meters

224.860 PL 110.9 W9SRO
224.800 PL 127.3 K9EC

70 cm

444.400 (+) PL 110.9 WB9RKD

Contest Calendar

Heavy Metal Rally

Mar 13 7PM - Mar 15 7PM
3.5-28 MHz Phone, CW
www.xe1rcq.org

Idaho QSO Party

Mar 14 2PM - Mar 15 2PM
1.8-440 MHz Phone, CW
www.nx7tt.com

Wisconsin QSO Party

Mar 15 1PM - Mar 15 8PM
3.5+ MHz Phone, CW, Dig.
www.warac.com

Oklahoma QSO Party

North Dakota QSO Party
Virginia QSO Party
Mar 21 - Mar 22
1.8-440 MHz Phone, CW, Dig.
www.okdx.org
k0ln.org
www.qsl.net/sterling/VA_QSO_Party

CQ WPX SSB Contest

Mar 27 7PM - Mar 29 7PM
1.8-28 MHz Phone
www.cqwpw.com

Other Events

McHenry Co RACES Meeting

March 24 - 7PM
McHenry County EOC

Lake Co RACES Meeting

April 6 - 7PM
Lake County EOC

MCWA Meeting

April 7 - 7:30PM
Nunda Township Hall

Judge Rules in Favor of Amateur in Palmdale Antenna Case

from the ARRL

February 6, Los Angeles Superior Court Judge David Yaffe issued a ruling in favor of Alec Zubarau, WB6X, of Palmdale, California, in Zubarau's case against the City of Palmdale. Last year, after Zubarau received a valid building permit from the City to erect an antenna support structure, the City of Palmdale revoked Zubarau's building permit after he had erected the tower. According to Zubarau's attorney, Len Shaffer, WA6QHD, the Court's ruling invalidates the actions of the City in revoking Zubarau's permit and requires the City to allow him to replace the tower.

"Zubarau's case has drawn nationwide attention and financial support from the ARRL, Amateur Radio clubs, and individual Amateur Radio operators from around the country," said ARRL Southwestern Division Vice Director Marty Woll, N6VI. "Although this ruling does not directly address the City's proposed zoning ordinance amendment, based on the Court's language, it should provide considerable support for those hams attempting to negotiate a more reasonable provision allowing antenna support structures in the Palmdale City Code."

According to Woll, the Court also found that "unsubstantiated complaints by neighbors and anecdotal reports of transmissions interfering with other electrical equipment or posing health and safety concerns" did not constitute substantial evidence. Yaffe's ruling stated that Palmdale's ordinance requiring that amateur antennas be compatible with the surrounding neighborhood with respect to visual and other impacts is void, since it may not constitute the minimum practicable regulation as required under the California state statute. The judge further found that the City's decision to eliminate the tower violates the express requirements of California's PRB-1 equivalent statute that was enacted in 2003, but had yet to be used in a court case.

"While falling just short of invalidating

Palmdale's current antenna ordinance," Woll said, "this language ought to put a damper on the City's Draconian proposed zoning ordinance amendment and its extreme limitations on Amateur Radio antennas. One hopes that the City of Palmdale will think twice in the future about using tactics - such as the threat of large fines - to force compliance with an order based on unsubstantiated findings."

Shaffer told ARRL that the text of the Yaffe's ruling will be released after the service of notice on the City and expiration of the appeal period. He, Zubarau, and Woll thanked the ARRL and the Amateur Radio community for what he called "the tremendous showing of support during this lengthy battle."

VHF Distance Scoring Yahoo Group

If you've followed the VHF Contesting reflector at all you know that there's much handwringing about the current rover rules. Some contesters advocate a VHF and above contest scored by distance and have set up a Yahoo group to explore that idea. According to the owner, "This group is designed to be a forum for distance scoring concepts in amateur radio VHF contests." Issues that will be discussed by the group include:

- * Advantages / Disadvantages
- * Summary of Distance Based Methods
- * Possible Impact to Contest Structure
- * Details and Specifics of various methods

The overall objective of the group is to explore the issues involved in distance based scoring and to ultimately disseminate information on the concept back to those radio amateur operators interested in VHF contesting activities. If you're interested, check it out at <http://groups.yahoo.com/group/VHFDistanceScoring>.

NCVEC Question Pool Committee Begins Work on 2010 Tech Pool

From the ARRL

The National Conference of Volunteer Examiner Coordinators' (NCVEC) <<http://www.ncvec.org/>> Question Pool Committee (QPC) is currently reviewing the Technician class (Element 2) question pool. The QPC relies on members of the Amateur Radio community to suggest questions and answers in a responsible manner to preserve a high level of legitimacy for our radio service, so the NCVEC QPC is seeking input from the amateur community concerning the revision. They are accepting input for new question topics and new questions, as well as suggestions for changes or deletions. [What about "What is the airspeed velocity of an unladen swallow?" - Ed.]

Amateurs may submit questions for the QPC via the NCVEC Web site <<http://www.ncvec.org/feedback.php>>. If you choose to submit a question for the QPC's consideration, please be sure to observe the following procedure:

* Questions must have no more than 210 characters, including spaces, or a maximum of three 70 character lines.

* Answers must be no more than 140 characters, including spaces, or two 70 character lines in length.

* Each question must be accompanied by four possible answers. The answers may be in any order, but the correct answer must be indicated.

* Each question must be accompanied by a resource or Part 97 rule to support the correct answer or explanation of the correct answer.

* Any question concerning swallows must specify African or European swallow. [Crap in a hat. - Ed.]

QPC Member and ARRL Assistant VEC Manager Perry Green WY1O said that the most difficult part of writing the questions and answers is creating the incorrect answers. "We try to stay away from 'All of these answers are correct' and 'None of these answers are correct' for some obvious reasons," he said. "It is a more difficult task to find three incorrect answers that are plausible, but are absolutely incorrect!"

Life on 222 MHz!

Recently a few of us have dusted off those 222 MHz radios that we usually just bring out for VHF and UHF contests and have started using the local repeaters. 222 MHz isn't the wasteland that many people think it is - there are quite a few repeaters in this area that can be reached on low power on a mobile and a mag mount mounted close to the ground, what KB9YCO affectionately calls a "hillbilly base."

Here are a few repeaters worth checking out:

224.700 (100.0 PL) Crystal Lake - K9VI linked to 52.91
223.840 (110.9 PL) Lake Zurich - K9SA linked to 443.950
224.860 (110.9 PL) Hawthorn Woods - W9SRO
224.800 (127.3 PL) Racine - K9EC

WeLCARS members have had QSOs on the 223.84 and 224.86 repeaters. N9QDS was able to reach the 224.86 repeater in Hawthorn Woods using his handheld on low power.

Joe Serocki Named ARRL Affiliated Club Coordinator

Joe Serocki, N9IFG - WeLCARS President, ARRL Affiliated Club Coordinator

Joe Serocki N9IFG, has been offered and has accepted a position as ARRL Affiliated Club Coordinator. WeLCARS, the Stoned Monkeys, Lake County RACES, and MCWA will continue to be his first priorities, of course. While these clubs would never give them preferential treatment, the philosophies behind these organizations are important to the growth of the hobby.

Joe's priorities include:

- * Link clubs together using Internet technology to share information (the ILClubs Yahoo group).

- * Host a get together for area clubs, if nothing else than as a complaint session about something (ARRL, contesting, the cost of equipment, price of gas, whatever, as long as it's constructive).

- * Supporting Affiliated Clubs as they request it or as the opportunity presents itself. Attend club meetings, see what's up, and offer ARRL services as there is a fit.

- * Working with existing clubs that are not ARRL Affiliated to consider affiliating by showing the benefits of affiliation and assisting with the process.

- * Linking existing clubs with existing hams, ARRL members or not. This will ultimately grow the ranks of ARRL members as well as keep hams involved in the hobby.

- * Consolidating hamfests (and minimizing overhead) so that there can we can return to more technology-centric hamfests without requiring them to become flea markets selling porn, drug paraphernalia, and such bling just to even break even.

- * Working with existing clubs to become more active in the community and marketing this.

This does not always have to be hard stuff like working marathons and providing a lot of operators, but taking advantage of opportunities as presented.

- * Leveraging existing organizations, such as the Boy Scouts, Girl Scouts, Campfires, AARP chapters, etc. with existing ham radio clubs. This assists with the growth of the hobby, but also with getting clubs involved in community awareness.

- * Getting clubs that are emergency services oriented working toward proper EMCOMM certification. This the emergency services club much more useful to the local community.

- * Making lists and talking about himself in the third person.

- * Recognizing that reading the Lake County Ham Radio Journal is the best reason to take your laptop into the bathroom. [We may have embellished on the last one or two... - Ed.]

Spring Sprints "On" for 2009

Though the dates haven't been announced, John Kalenowsky K9JK has said that the Spring VHF Sprints are definitely on for this year. Typically, the format for the Sprints is to have 5 separate contests over 5 weeks: the 144 MHz Sprint on a Monday, followed by the 222 Sprint the following Tuesday, and the 432 Sprint the following Wednesday, with the Microwave (902 and up) and 50 MHz Sprints on the two weekends after that. Many WeLCARS members have operated portable from the Worldwide Headquarters during the contests. The 2008 rules can be found at <http://www.sysadnet.com/vhfsprinrules.htm>

Do-It-Yourself Innovation

Steve Lampereur - KB9MWR

If you ever glance at the non-ham publications like RF Design Magazine, or Mobile Radio Technology (now Urgent Communications) you'll get a real-world idea of what's going on. Basically, digital wide band modes are exploding. The remaining analog voice is going very narrow band to make room for the wider stuff. Then there is ham radio - what appears as an obsolete museum for modes like AM, CW, and ATV. [Father's Mode, anyone? - Ed.]

For example lets take a look at 2 meters. There is 4 MHz of space, with maybe 10 repeaters in a given area, and how many hours of transmit time do they all see combined daily? It's a shame those repeaters are spread across nearly the whole 4 MHz, when they could be coordinated / engineered to take a total of a few KHz, leaving a good 3.5 MHz of space left left for some of this exploding technology. Technology that is not just limited to voice, but can support digital voice, data, text messaging, live digital video, etc.

There is nothing wrong with having a place for nostalgic modes, until they are held so tightly that it interferes with the future of the hobby. But never fear as I blogged before, 900 MHz and above are the current place for experimenters.

The amateur radio service was devised in part due to encourage experimentation, as hams have traditionally helped advance the radio art through that. If you are expecting the commercial manufactures; Yeasu, Motorola, Icom, and Kenwood to devise new exciting technologies for ham radio you are certainly confused. That's our job; read our basis and purpose again. In the commercial world, it takes a rather large initial investment to manufacture something, let alone design it too. For a manufacturer to obtain the loan to put something into production they have to do a market survey to ensure what they are going to produce will sell.

Go back 20-30 years and look at packet radio. In 1978 a group of amateur radio operators, the Vancouver Amateur Digital Communication Group (VADCG) in British Columbia, Canada, began experimenting with Packet radio using a Terminal node controller (TNC) developed by Doug Lockhart, VE7APU. In late 1981 TAPR developed the TNC-1 and TNC-2 which are de facto standard TNCs.

Once commercial manufacturers like Kantronics and PacComm noticed there was a market they started amateur TNC production. These companies are like Motorola, Kenwood and Icom and all have a commercial/non-ham line of products that keeps them afloat, too. But it started with one ham putting something together, in this case Doug VE7APU, and then some help from TAPR or another small manufacturer to get a few of the things out there to other interested hams.

What I'm trying to say is if you want something new in the hobby, you really cannot wait for it to happen. Buying books like the ARRL Handbook, UHF/Microwave Experimenters Handbook, or subscribing to magazines like QEX or RF Design can help you learn new things to increase your overall knowledge that you can apply to the hobby.

I have one last thing to point out. If you are doing something different, please spread the word. Talk about it on the air, during nets, on mailing lists, consider writing an article for a magazine, etc. We all have different comprehension levels, so no matter how big or insignificant whatever you're doing many seem, remember this. It's so much more interesting and beneficial for the rest of the ham populous to read about something different. This is how you generate interest, a very key ingredient necessary for an idea to take off into commercial production... and keep ham radio alive & interesting!

Ten-Tec: Made in the USA

Keith Shreiter - N9QDS
Vice-President, WeLCARS

AL Kahn and Ten-Tec, The Beginnings

In 1919 at the age 13 Al Kahn became interested in amateur radio (ham radio) when his Boy Scout troop acquired an E.I. Company "wireless set." After setting up the radio, Al and his troop discovered that the set did not work.

Kahn convinced the scoutmaster to let him work on the radio. He took it home, fixed it in about an hour, and once it was operating Al heard NAA, an early U.S Navy station, transmitting.

That did it; Al was hooked and began to study amateur radio in earnest. He soon linked up with three boyhood friends who shared his interest in radio. Two years later, in 1921, he received his first license from the Department of Commerce. That government office issued amateur radio licenses, not the Federal Communications Commission (FCC), as the FCC had not yet been formed. Al's first call sign was 9BBI. Kahn was quoted saying, "We used ink bottle tops for the knobs and wound wire around Quaker Oats boxes to make coils."

As a teen, besides his passion for radios, Kahn loved riding motorcycles. In those days a popular brand was the Indian. Much later in life, Al got a call telling him he was getting the prestigious Army-Navy E award. His secretary, who took the call, told the caller he was out-on his motorcycle. He used the cycle on company errands.

In 1922 at the age 16, Al obtained a half-kilowatt rotary gap transmitter. Al decided to build his Hartley oscillator using a UV202 tube. The oscillator was only the start! CW or continuous wave (used for transmitting with a key by means of Morse code) had become part of communications and amateur radio. Kahn loved it. With 400 volts on the plate, and using an antenna current of 1.3 amps, he was able



Al Kahn in the 1940s

to get about 10 watts input. His whole rig was set up on a bread board. Al spent many hours as a teen working his station. In the early 1920s, the only amateur radio band

was 200 meters, which is basically at the top of the AM broadcast band today. He and four other buddies, all boy scouts, purchased some Ford spark coils and held daily QSOs (conversations) across South Bend, using crystal sets for their receivers. It was good fun and Kahn found his one lasting interest – amateur radio.

Electro-Voice

In 1927 Al decided to form his own amplifier, speaker, and microphone business: the Radio Engineering Company. The new business was located in the basement of the Century Tire & Rubber Company, a retail tire and gas station in South Bend. During the period 1927-1930, Kahn Recognized the need for better microphones for public address systems. He gradually figured out how to make a system that worked after meeting Knute Rockne, the legendary Notre Dame Football coach. Knute,

who was in poor health, complained to Kahn that he could not be heard during practice sessions with his team. He asked Al to help. Al was happy to try. He built a box and in it he put an amplifier, speaker, microphone, and switches. Kahn's company devised a system featuring separate loud speakers pointed at each of the four fields. By flipping a switch Rockne was able to amplify his voice and direct it to any one of the fields. The coach loved the system and referred to it as his "electric voice" Al liked the term, but altered it slightly to Electro-Voice. In 1930 he officially renamed his company Electro-Voice and incorporated the business.

Kahn began to experiment with microphones, continually developing better ones. Al decided to construct a velocity – or ribbon – microphone and couple it to a public address system. Prior to Al's innovations microphones were mostly carbon button varieties, and much less effective. Al's company soon became a major supplier of microphones to the public address industry and later supplied microphones to the television and motion picture industries as well.

As the years sped by, so did the phenomenal growth of sound and communications. Electro-Voice in the 1950's developed and patented a torque-drive phonograph pick-up cartridge that could reproduce stereo signals – the first to do so. This resulted in a glut of orders from literally every manufacture of phonographs in the U.S and abroad. After the war years, Al bought up trainloads of electronic parts and seeing that some of them were surplus to his needs, they were supplied to Heath and were used in the O1 Oscilloscope kit, the first Heathkit product.

Gulton Industries

E-V completed a merger with Gulton Industries in 1969. Al served on the board of the parent

company, a conglomerate that owned thirty some industries, but he had a disagreement with Gulton and left the company. Al said he was not cut out to run a public-owned company...it was anathematic [I'm still not paying for that "Word a Day" calendar! – Ed.] to everything that he had done in his lifetime.

Not yet ready for retirement and a rocking chair, Kahn decided to buy the property adjacent to the (new) Gulton location (formerly the Sevierville Electro-Voice plant) and he and Jack Burchfield founded Ten-Tec, an equipment manufacturer. Burchfield (W8CDR - later K4JU) joined the Electro-Voice team in 1958 and became a trusted leader in the company. He worked with Al for ten years, but then left him for a position in New Jersey. Burchfield, whose call sign was W2EIK in 1969, had been senior engineer of loudspeakers in Electro-Voice's engineering department. When Al called him one day and told him about his plans for opening a new business called Ten-Tec in Sevierville, Tennessee, Burchfield joined the new company and today is its president.

Although Al's vision was to specialize in Amateur Radio Equipment, he did not limit his interest, and his ability to explore new areas has contributed to Ten-Tec's success over the past forty years. In fact, it is a riveting story and involves many people, all who lived his dream and turned it into reality



Ten-Tec - A New Beginning

The Ten-Tec saga actually began in 1968 when Al Kahn and Gulton Industries parted ways. One can only wonder what Doc Gulton must have thought as he watched Al and his company erected a new, modern Ten-Tec building right across the street from them. It's ironic that the Gulton Industries plant closed in 2001 and was torn down. With the completion of the new building a new era began. The Ten-Tec building was smaller than the old Electro-Voice plant, but Ten-Tec represented something new and dynamic for Sevierville. Ten-Tec's manufacturing history began with the PM (Power Mite) series of low power (QRP) equipment. Not long thereafter, they manufactured the TX-100, the only radio they produced that was a crystal control rig, largely due to the time when it was built. Ten-Tec also produced the RX-10, then the Argonaut, Century, and Corsair. The Argonaut was the first multi-band QRP transceiver. In fact, Ten-Tec was the first to build an all-solid-state transceiver as well as the first solid state amplifier for Amateur Radio.

Kahn's known Accomplishments

Kahn accumulated many honors over his more than eight decades as a radio amateur and industry figure. He was inducted into the CQ Amateur Radio Hall of Fame and was a member of the First-Class CW Operators Club (FOC), the Old Old Timer's Club, the Quarter Century Wireless Association (QCWA), and the A-1 Operator Club. In 2002 the QCWA honored Kahn on his 80th anniversary as an amateur licensee. He also received an Army/Navy "E" Award in 1945 for supplying the War Department with thousands of microphones during World War II. The Boy Scouts of America presented Kahn with its Silver Beaver Award for staffing Amateur Radio stations at international scout jamborees.

Al Kahn Silent Key (SK)

Al Kahn, then K4FW, died June 15, 2005 at the age of 98. Kahn remained a member of the Ten-Tec Board of Directors until his death. Kahn's daughter, Carol Bieneman, said her father had continued his regular CW schedules with his old friends until just a few days before he died.



Icom ID-80AD

Icom is set to come out with a new dual band D-STAR HT. Unlike the ID-91 and ID-92 handhelds the ID-80 only has one receiver, and the display looks to be a seven-segment type display rather than the more sophisticated dot matrix displays of the 91 and 92. Pricing hasn't been released, though D-STAR aficionados are hoping for a street price of around \$300. That may turn out to be wishful thinking - the radio has been released in Japan and goes for more than the ID-91.

The IC-80 has recently been approved by the FCC and if your humble author was a betting man, he'd figure on it being released at the Dayton Hamvention. [I guess N9IFG isn't the only one that likes talking about himself in the third person. - Ed.]

AT&T U-verse Broadband Review

Chris Burke - N9YH

Secretary/Treasurer, WeLCARS

There's a new game in town for broadband Internet access and cable TV. AT&T recently rolled out their U-Verse service in the Chicago area and sent out a few salespeople knocking on doors to hawk it. Unlike most of the Chicago area nerding world that subscribes to Comcast, our family had been AT&T DSL subscribers for four years and had been happy with their service. We easily obtained rates of 6 Mbps downstream, thanks to our convenient location nearly across the street from the switching office. We had also been DishNetwork subscribers for longer than that; Dawn and I had been satellite TV subscribers since getting DirecTV 11 years ago and switching to DishNetwork about a year and a half after that. We were reasonably happy with DishNetwork, but like with all satellite TV services when the weather is bad your signal goes out. And with our recent purchase of a high-definition flat screen, I was itching for an HDTV upgrade. So, when the salesperson showed up and offered a good price (\$130 for TV, 6 Mbps Internet, and phone) we signed up.

So how do we like the service? Well, before I get into that, let's talk about how U-Verse actually works. You'll often hear that U-Verse billed as a fiber optic service, and that's about half right. To overcome the normal distance from the CO (central office) limitations for DSL, AT&T has installed big somewhat unsightly boxes they term "video ready access devices" or "VRADs." In new neighborhoods, AT&T might deploy the service as FTTP, or fiber to the premises, but in an established neighborhood like mine AT&T goes with the less expensive FTTN, or fiber to the node. Essentially, they run fiber to the VRAD box in your neighborhood, then they use a typical

copper wire twisted pair to go from the box to your house. A purely fiber network would be faster, but by using their existing copper wire infrastructure AT&T is able to save a ton of cash by not having to dig up your neighborhood to run a new cable to your house. Still, with our residential gateway, or "RG" in U-Verse nerd parlance, reporting that it's capable of speeds up to 67 Mbps we can't really complain.

"Sweet mother of mercy - 67 Mbps and you get everything for \$130?!? Comcast charges \$150 or so just for 50 Mbps Internet! This is the greatest deal EVER! Sign me up!" Whoa there, big fella! There are a couple of caveats about that 67 Mbps figure. First of all, the connection is reportedly capable of that speed, but AT&T limits us to about 25 Mbps unless we pony up more cash for faster Internet service. Still sounds pretty good, right? Well, also keep in mind that television and home phone are delivered using that same connection. U-Verse TV and phone are IP based, meaning unlike traditional cable or satellite TV all of your television comes in as IP packets rather than some kind of digitally modulated carrier, so both of those services cut into that number. TV is the biggest bandwidth hog, using up to about 17-18 Mbps of your available bandwidth leaving us with the 6 Mbps that we paid for (typical speed tests put us in the range of 5.5 Mbps, virtually the same as our previous Elite DSL service). Former Comcast subscriber

N9IFG reports that unlike U-verse, Comcast's phone service counts against your quoted bandwidth.

U-Verse is also like satellite TV in that you're limited to the number of different channels you can watch in your home at



U-verse "VRAD" Nodes

any one time. On a satellite system, you're limited by the number of downconverters on your dish and the switch inside the house. Since U-Verse is IP based, you're limited by the amount of bandwidth to your house. AT&T puts the cap at 4 streams at any one time, up to 2 of them being high definition, though you can have up to 8 receivers installed. Unlike satellite, though, it only counts as a new stream if you watch a different channel, so when my kids turn every TV in the house to Nickelodeon to watch SpongeBob it counts as one stream.

As far as amenities go a digital video recorder (DVR) is included. While you can only set recordings or pause live TV on the DVR receiver, you can watch recorded programs anywhere in the house. Also you can record up to 4 shows at once, and each show you record counts as a stream. As long as you have another stream available you can record one or more shows and watch another. As far as I know, no other service offers DVR service where the programs are available at every TV in your home. (Okay, that's not entirely true... TiVo will let you do that provided 1) you buy a TiVo box for every TV, 2) each box is connected to your home network, and 3) you pay the service fee of \$13 for the first box and \$10 per month for each additional box making it crazy expensive compared to AT&T and out of the question for us. Source: www.tivo.com.)

Still with me? Good - now we're getting to the heart of the matter. For the first two months we'd be plagued by periodic service outages. Sometimes it would work for days, other times it would go out 6 or 7 times a day for about 5 minutes at a time. That doesn't sound like much, but that made the TV less reliable than Dish and also took out our Internet connection and home phone, something that never happened with DSL and POTS ("plain old telephone system"). It took three visits and multiple phone calls to finally get a knowledgeable technician who found what I expected - bad connections were introducing a errors on the line. Since the last visit more



than 6 weeks ago our connection is much more stable - instead of getting millions of corrected errors and tens of thousands of uncorrectable errors in a 24-hour period we get zero of each. Our only problem now is the TV in the master bedroom will lose its sync with the gateway from time to time, requiring a reboot. And when I say "reboot" I'm talking Windows PC reboot time - it's not like turning your satellite set top box on and off, these things take about 3-4 minutes to boot up and display a picture. (The Windows PC analogy is pretty accurate - the boxes run on Windows CE, a version for embedded systems.) I suspect the first installer did a craptacular job on that and I'll be running some new RG-6 cable shortly. Every now and again the TVs downstairs will drop a frame.

At first I concluded that as far as IP-based television is concerned, the more complicated they make the plumbing, the easier it is to stop up the drain. Still, from what I hear from cable customers, cable TV doesn't have nearly the rock-solid reliability I expected. While I don't have any hard data, I would consider U-verse to be at least as reliable, if not more

reliable than Comcast, once all the bugs in our install were ironed out. N9IFG turned to U-verse after struggling with the combination of Comcast and Vonage and reported his install went much more smoothly, though after hearing about my experience he refused to let the installer leave until the installer demonstrated there were no errors on the line.



The bottom line is the price we're getting is still less expensive than our previous DishNetwork/AT&T service and less expensive than Comcast. Also, unlike going with Comcast we don't have an introductory rate that will go up in 6 to 12 months, the install was free, and we got \$50 cash back for signing up (Comcast's Triple Play intro rate is roughly \$140 a month for a similar channel lineup. That increases to \$170 after 12 months and there's a \$99 installation fee. Source: www.comcast.com). If you're reasonably happy with Comcast or your current service right now and you're looking to save some money I would suggest first calling to cancel to see what they offer you, you might be surprised. I certainly was when DishNetwork offered us a free HD DVR receiver upgrade. (Don't just threaten to cancel, actually say "I want to cancel" and they'll route you to the Retentions department - that's where the magic happens.) Otherwise, the quality is pretty much the same - the only extra feature we've got is the Total Home DVR, and only you can decide if that's worth the extra headache of switching providers. If you're going to be considered a new customer for Comcast then I would definitely give U-verse a try since getting connected will cost much less.

Scanner Master Radio Desk Mounts

From the "Neat idea... It costs how much?!?" Department. ScannerMaster.com has several mounts for multiple radios, both handholds and mobiles, that make easy work of setting up your shack. With prices ranging from \$60 (2 units) to \$80 (4 units) for the mobile version and \$40 (1 unit) to \$60 (3 units) for the HT version, these aren't cheap but they would make for a tidy shack for the ham or scanner buff that doesn't have the time to roll their own.



TechFest IV: Son of TechFest

Joe Serocki - N9IFG
President, WeLCARS

Even with a winter weather warning, 2 inches of snow on unplowed roads, and multiple accidents in the area, TechFest IV was a success! All vendors declared a profit and will return next year, the seminar on APRS was very well attended, and the food was once again fantastic!

The food service, provided by Venture Crew 743, came in at about a \$100 profit with some leftover pop for WeLCARS/Stoned Monkey events and some pizza for the Scouts on their upcoming trip to the Mall of America. The kids were working too hard to not reward them somewhat for their efforts, and their diligence was outstanding for a bunch of 14 year old teenage girls. N9IFG made an executive decision to sell off some ARRL donated handbooks we were not using because of the lack of space in the library. N9IFG separated the media and charged a significant discount on the paper books so we could still have the reference material for club projects. The CDs are in our library, as well as the Antenna Books, which are great reference material.

Many thanks to all who helped, but especially Chris with the setup assistance and schlepping tables around, Georgette and Mary Fran for keeping us fat, and Steve for providing a well attended seminar on APRS that was very well attended. [Joe's next article will be on the newly formed "WeLCARS Department of Redundancy Department" - Ed.]

Plans are already in the works for next year, with TechFest V: Bride of TechFest quite possibly being a multi-club event that will be much larger than any TechFest to date!



Another Successful Merit Badge Class

Joe Serocki - N9IFG
President, WeLCARS

Well, another class year has come and gone. This time we had only four kids, but each of them learned a good deal, earning their Merit Badges in record time (4 sessions)! With each completing their projects and getting on the air, we have developed an interest in technology to four kids who never had the exposure before, and hopefully brought another group of Dilberts and Wallys in the American workforce someday!

This program has been going on for 8 years now and has been very successful. We started with a small group, including one kid who the high school had classified as "will not amount to much of anything." That kid, through exposure to technology and some career guidance, is now an avionics and engine mechanic (yes, both) in the Air Force, seeing the world on our dime. Right now he is in Korea living at a 5 star hotel (yes, they have those there, and they don't serve too many cats via room service, he asked), advancing extremely fast, and still credits us with his career guidance! His advancement has been amazing, for all you military types he is Primary for their COMSEC program and about to make E-6, all at 22 years old!

We also encourage leadership in the program and have had more than a few kids go on to jump-start their lives much faster than their peers. One timid kid, who truly loved the environment, joined an environmental group that went deep in the forests of California to work on a preservation team, and ended up leading a team while camping in the woods, in



Ranger Gord

a tent, for two years! He came out and went on to get his Forestry Degree and is back at it again! Personally I am thinking Ranger Gord, but anyway...

I want to offer my thanks to all who helped, especially Chris, Lee, Keith, Ken Knapp and my wife Georgette, without their assistance I could not pull this off. That and Aldi for their hot dogs, the wonderful product that we could not have the program without!

Next year: Electrocuting Pickle!!! <http://www.mun.ca/LTS/files/Electrocute_a_Pickle.doc> [I think you've eaten too many electric hot dogs... - Ed.]

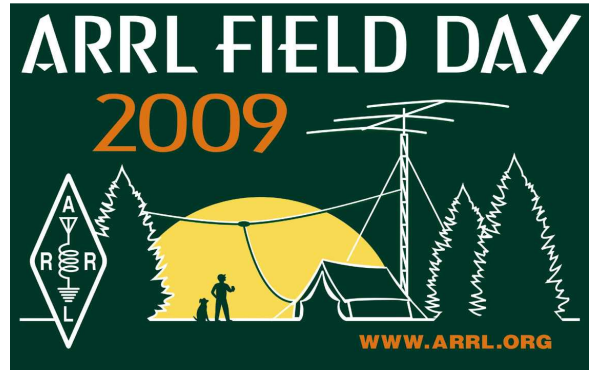


Announcing Field Day 2009: The Initial Attack Plan!

Tom Staley - K9TMS

WeLCARS Contest Coordinator - President, Stoned Monkey VHF ARC

Ok so the ARRL Logo isn't much to look at, maybe it would have been better if there were lightning bolts hitting the tower and twelve pair of shoes showing around the lower edge of the tent belonging of course to the 12 people inside trying to hold it down. One thing is a sure thing Field Day is not that far away. As a result it is now time to start planning.



less as we will be going for the 2X power multiplier. We are also trying to see to it that we get a CW station on the air as well as a digital station on the air. If you have a desire to help out or add assistance contact one of the people listed or

let me know. We are in need of additional GOTA operators.

Field Day for 2009 takes place on June 27th and 28th.

At the current time we are gathering specifics on station equipment. The information at this time is the basic antenna list that generally is the first out. Starting at the bottom:

In regard to our operation there will be some major changes for 2009. Most notable will be the location. After having shelters almost blown off the site and then enduring "Swat Fest" with the hordes of flying critters that invaded after dark! For 2009 we will change our location to the Fox Lake Community Center commonly known as WeLCARS World Wide Headquarters or WWWHQ. The site is the same site we use for meetings and is located at 23 South Street in Fox Lake next to the Water Tower. A test of the site in November showed that there are not many issues except some noise on 80 meters. This is possibly due to a bad street light.

- * 80 Meters N9QDS is exploring several different ideas the most interesting is loading up the flag pole via shunt feed. This will keep in the spirit of using what is available.
- * 40 Meters we will most likely be using the Dipole we used last year. A Ham Stick Dipole is also available. K9BTW will also have his mobile vertical.
- * 20 Meters we will have N9QDS's Rotate able Dipole as well as the Ham Stick Beam
- * 15 Meters is a question at this time.
- * 6 Meters – one K9TMS 5 element beam
- * 2 Meters "Big Bertha"
- * 432 will use a single boomer.

The other change for this year will be the class we operate. At this point in time I am hoping we can muster enough support to do a 6A class operations. This year all stations will need to keep the power levels to 150 watts or

Support structures for antennas will be varied from masts, tippers and the two Hula towers. Basically we should have enough support for antennas.

Station #	Band	Manager	Co-Manager	Power
1	80/15	N9QDS	N9KTL	100 Watts
2	40	K9BTW	K9YH	100 Watts
3	20	K9HA		100 Watts
4	Digital	KC9LFP	KC9BNY?	100 Watts
5	CW	Open		100 Watts
6	6	K9TMS		100 Watts
7	144/432	K9TMS		150/110 Watts
Propaganda	--	N9IFG	--	1KW Bull Horn
GOTA 1	ALL	W9LGP		100 Watts
GOTA 2	ALL	KC9NJZ		QRP?

At the present time this is the information we have expect a further article in the May Journal explaining all the details as we get it sorted out.

We want to encourage every Ham to get to a Field Day site and play on the air.