
Waves

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June 2009

Hams helped provide communication for the American Diabetes Tour de Cure

The following group of Hams helped provide communication for the American Diabetes Tour de Cure May 9:

Dewayne Siddon KE4IDH, Shawn Stoddard KG4OVQ,
Nelda Sprayberry KA4VMA, Dot Timmerman AC4HH, Maxine Wiggins N4YAZ,
Chris Bain KI4HZE, Terry Brown KE4KXZ, Marcia Brown KF4MLP,
Bill Wiggins N4BMR, Bill Dobbs K4TSF, Mark Rose KA0YDC,
John Collette AF4XZ, Mike Sabin KI4MIA, Maria Sabin KJ4AFN,
Charlie Wheaton KJ4RC, Loyd Hedrick K4LCH, John Barrett KG4OVU,
Jim Sprayberry KA4VLZ, Milo Jackson W4MLO, John Gorkos AB000,
and Charlie Curle AD4F.

I am going to recognize several groups that I really appreciated having.

First are the newcomers. They all broke the fear of the unknown and contributed a lot to the success of the ride. You may not think you did, but you did. I want to thank John Gorkos AB000 for providing two very necessary digipeaters for us. They gave us APRS coverage for the entire route where we would have been lucky to see half of it without the additional coverage. Then there are the faithful few that you can always count on. Some of them have been supporting this and other rides for over twenty years.

To all of you, especially the five YLs, I want to say thanks publicly. Job well done. I am looking forward to your help next year.

Ben Timmerman
AC4HG

USING LOW PASS AND BAND PASS FILTERS ON TRANSMITTERS

Almost any low-pass filter will offer at least 30-60 dB of stop-band attenuation. Good units are made by Bencher, Drake and ICE. Keep the jumper between the transmitter and filter as short as possible to prevent the jumper from becoming any kind of antenna for harmonics. In most cases, if the interference is caused by transmitter unwanted emissions, this will be quite enough to make the problem go away.

The main purpose of a low-pass xmit filter is so that when you DO have an interference problem, you can point to it with pride.

Most cases of consumer interference are caused by fundamental overload, not transmitter harmonics. If the only requirement is to attenuate harmonics, the right solution is to use a lowpass filter or a harmonic notch filter - at any frequency. One important difference at VHF is that the percentage frequency change is usually much smaller than at HF. This means that the harmonic frequencies are essentially fixed, so harmonic notch filters using coax stubs can perform very well indeed. See the web page, <http://www.ifwtech.demon.co.uk/g3sek>, for details of the harmonic notch filters by G4SWX which have excellent performance, can be built in minutes, cost literally a few pennies, and can handle a kilowatt.

Chattanooga Amateur Radio Club Minutes - May 7, 2009

Minutes from the regular monthly meeting.

Officers Present: Mark Rose- Pres., Bill Dobbs-VP, Susan Miller -Sec., Jim Knight - Treas.

Directors Present: Tom Cash, Susan Miller, Ben Timmerman, Tom Morgan, Charlie Curle.

Meeting was called to order at 7:05 by president, Mark Rose.

Mark reminded everyone that the meetings are the first Thursday of each month at the Red Cross Bldg on McCallie Ave at Palmetto.

Mark asked if everyone received their email copy of the "Waves". If you did not, please get in touch with Mark Rose.

Mark was asked if he could get with Lloyd and have the format changed from two column format to a straight across the page format. The double column cannot be read by reading devices for impaired sighted persons, and the double column format cannot be copied easily.

Ben Timmerman moved to accept the minutes of the April meeting as written in the "Waves", Charlie Curle seconded the motion, the motion passed.

Bids are open on the equipment given to the club. Susan Miller is accepting bids via email, wagtimebt@comcast.net, up until 9:00pm June 3, 2009. If you miss this deadline, and want to bid, come to the June 4th meeting. Bids will be taken until 8:00pm night of the meeting.

The bids as of May 13, 3:00pm are Rohn Tower \$155; Butternut Antennae \$100; Mosley Classic Beam \$55.

Treasurer's report was given by Jim Knight:

Bank Account \$9,183.03

Hmfst Acc. 9,691.84

P.O. Acc. 135.09

Total.....\$19,009.93

The report was accepted as read.

The club has 2 new members, David Mittelstadt, KJ4KET, General Class and John Wood, KJ4IJ, Extra Class. Welcome to John and David.

If anyone is willing to help on Field Day, please talk to Jim Knight. Jim asked if everyone would just talk to ONE other ham and ask them to come, we could have a nice crowd and lots of help.

We will work out the details of Field Day at the June Meeting, where Field Day is the program for that night.

Tom Morgan gave the Repeater Report stating that "All is well."

June 4th meeting will be held at the Red Cross Bldg. at 7:00pm.

There will be no July meeting unless anyone wants to have a dinner or picnic.

Please let Mark Rose know if you would like to participate in either a dinner or picnic.

Meeting adjourned at 7:30pm.

Ben Timmerman gave a very interesting and informative program on D-Star.

Respectfully submitted,

V. Susan Miller

KI4RZJ

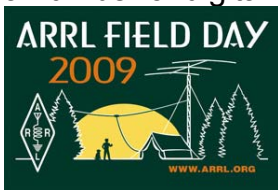
CARC Recording Secretary

What is Field Day?

The [ARRL](#) Field Day, is conducted by the [ARRL](#) the fourth full weekend every June. In 2009, this is June 27th and 28th. Field Day encourages the use of radio equipment outside of permanent buildings and using electricity other than conventional mains. Field Day has several purposes:

- Emergency preparedness
- Recruitment and training of new radio amateurs
- Displaying ham radio to the general public

Unlike other contests, Field Day is rarely a single-man operation. In fact, Field Day is frequently used to highlight to the public, the virtues and utility of ham radio in an emergency situation. Some clubs demonstrate a wide range of technologies, including single sideband voice, Morse code, and a number of digital modes including [APRS](#), [packet radio](#), as well as [satellite communications](#).



First and foremost, [ARRL](#) Field Day stresses emergency preparedness. During this exercise, entire radio clubs get involved, and take "Field" Day literally, erecting numerous radio masts and towers, each bearing several antennas, in a field, parking lot or in a major park. Most Field Day operations use generators to provide power to ham radio transceivers.

The goal of [ARRL](#) Field Day is to work, or contact, as many stations as possible throughout the 24-hour duration of Field Day. The Field Day exchange is one's callsign, along with the number of stations in simultaneous operation, followed by a letter (A-F) designating the method in which the stations are being powered, such as by generator, solar power, or conventional mains AC.

FCC Looks to Raise Vanity Call Sign Fees for Second Consecutive Year

The FCC released a Notice of Proposed Rulemaking and Order (NPRM) on May 14 seeking to raise fees for Amateur Radio vanity call signs.

Currently, a vanity call sign costs \$12.30 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to \$13.40 for 10 years, an increase of \$1.10.

The FCC is authorized by the Communications Act of 1934 (as amended) to collect vanity call sign fees to recover the costs associated with that program. The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. Instructions on how to comment on this NPRM are available on the FCC Web site.

The vanity call sign fee has fluctuated over the 12 years of the current program -- from a low of \$11.70 in 2007 to a high of \$70 (as first proposed in the FCC's 1994 Report and Order). In 2007, the Commission lowered the fee from \$20.80 to \$11.70. The FCC said it anticipates some 15,000 Amateur Radio vanity call sign "payment units" or applications during the next fiscal year, collecting \$201,000 in fees from the program.

The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. The first vanity call sign licenses issued under the current Amateur Radio vanity call sign program that began in 1996 came up for renewal three years ago.

Those holding vanity call signs issued prior to 1996 are exempt from having to pay the vanity call sign regulatory fee at renewal, however. That's because Congress did not authorize the FCC to collect regulatory fees until 1993. Such "heritage" vanity call sign holders do not appear as vanity licensees in the FCC Amateur Radio database.

Amateur Radio licensees may file for renewal only within 90 days of their license expiration date. All radio amateurs must have an FCC Registration Number (FRN) before filing any application with the Commission. Applicants can obtain an FRN by going to the ULS and clicking on the "New Users Register" link. You must supply your Social Security Number to obtain an FRN.

The ARRL VEC will process license renewals for vanity call sign holders for a modest fee. The service is available to ARRL members and nonmembers, although League members pay less. Routine, non-vanity renewals continue to be free for ARRL members. Trustees of club stations with vanity call signs may renew either via the ULS or through a Club Station Call Sign Administrator, such as ARRL VEC.

League members should visit the "ARRL Member Instructions for License Renewals or Changes" page, while the "Instructions for License Renewals or Changes" page covers general renewal procedures for nonmembers. There is additional information on the ARRL VEC's "FCC License Renewals and ARRL License Expiration Notices" page.

License application and renewal information and links to the required forms are available on the ARRL Amateur Application Filing FAQ Web page. The FCC's forms page also offers the required forms.

The links to the above-mentioned websites can be found at, <http://www.arrl.org/news/stories/2009/05/18/10825/?nc=1>.

CHECKING A CABLE TV SYSTEM FOR LEAKS

If your neighbor is on cable, check that first. The easiest way to narrow this down is to see if there are leaks in the system. On cable, they use 2 frequencies to each channel. The easiest one to use to check for us is ch. 18. Its picture is sent very near 145.26 and its audio near 149.76 . If you have an extended coverage receive 2 meter and a beam antenna, put it on 149.760 open up the squelch, and rotate it and listen for the voice leaks from ch. 18. Once you get the heading. take a HT and go for a walk. You very well may find it seems to be strong and then you may need to check for leaks in your own house. Get it as close as you can with the HT, use your body as a directional attenuator to get some directional headings on the HT.

Once you close in to the house, room, pole or what ever, you can remove the antenna from the HT to pin point the exact location of the leak. You may find the problem a Cable Ready TV tuner, a homeowner's own cable addition with non Cable TV rated RG59, a splitter with a unused port and no terminating resistor cap on it. This will not take much time, unless the leak is in your neighbor's house and he is not cooperative. Document the steps, and the results.

The "standard" splitters RS sells are in some cases quite leaky; however, the "gold" series ones they sell are pretty tight. They are much preferable.

MAKING COMMON-MODE CHOKES

The easiest way to make a common-mode choke is to take a ferrite toroid and wrap about 5-15 turns of the feedline onto the toroid, forming a coil. This will attenuate common-mode signals nicely, without significant effect to the differential-mode signals INSIDE the feedline (the desired TV signals in the case of TVI). For lower HF, #73, #75, #77 or J type material is best; for upper HF and VHF, #43 is a good all around material.

To realize effective chokes in few turns it is a need to use materials whose permeability is very high, 2000 or more. Large cable, such as monitor cables, are impractical to wind. The solution here is to use large, split toroids and mate the halves tightly after winding the cable around each half.

"Some improvement" with ferrites indicates that more ferrites added may cure the problem. Radio Shack "Clamp-On Chokes" must have 5 turns or more to be effective on 80 meters. Split beads are about 10 times as good (Palomar FSB-1/2 or equivalent). Beads must be where leads enter the electronics box. Also treat the power cord and any other wires entering the box. If feasible, .001 mfd disc capacitors from the leads to ground on the box side of the ferrites will make the beads more effective.