



# CAARA Newsletter



AN ARRL AFFILIATED CLUB

DECEMBER ISSUE- 2009



## President's Corner

by *Curtis AA3JE*

Your president is still recovering from our November hamfest! I am still amazed that we made as much as we did (over \$800) given the weather (“it was a dark and stormy day in Rockport.....”). My gracious thanks to all those who donated gear for the club table. Amazingly, it all sold and sold quickly!

We are gearing up for the holiday dinner, and it looks like it will be a fabulous bargain. Remember, admission is free if you bring a covered dish (coordinate with the clerk in advance (to avoid a meal of 100% beans). In these tough financial times it is a great return to get an entire meal in return for a green bean casserole. There will be a Yankee swap and the door prizes this year include an HF rig.....

December is the time of year to reflect on the year past, and what a year it has been. Hamfests, Contests, Field days (winter and summer), Island events, Technical programs, EMCOM, Club upgrades, CAARANET, GPS FESTIVAL, Homebuilt tube gear, Homebuilt IC gear, Old radios, new radios, Build a superhet, and last but not least, a CW class! All going on in a wonderful muddle.

And best of all, it is no longer just one or two individuals driving the club, but a solid core of guys and gals who each take on one project and do a great job of it.

So that's my December challenge to you. What are you interested in, in Ham Radio, that we should do? Are you willing to step up and help others learn how? You don't have to be very expert, just willing to try.....

Hello CAARA members,

The Board of Directors is pleased to announce that the Cape Ann Amateur Radio Association has become a Corporate Sponsor for the Thacher Island Association. The outline of Thacher Island is on our club logo. Our year long membership will help assist in preserving a National Historic Landmark. We are thrilled to keep building on our partnership with the Thachers Island Association as they have welcomed the Cape Ann Amateur Radio Association and it's members to the Island for our special event station expeditions that we have held for the past two years. Our members are also assisting the Thachers Island Association with the installation of a Wi-Fi link from the mainland to the Island. If you wish to learn more about Thachers Island and the history of this National Landmark, you can go to [www.thacherisland.com](http://www.thacherisland.com) .

73's

Dean Burgess KB1PGH  
CAARA Clerk

**Member Meeting on Wednesday, December 2 at the clubhouse featuring a talk on Surface Mount Technology (SMD) by our own Dave Robinson.**

**Surface-mount technology (SMT)** is a method for constructing electronic circuits in which the components (SMC, or Surface Mounted Components) are mounted directly onto the surface of printed circuit boards (PCBs). Electronic devices so made are called surface-mount devices or **SMDs**. In the industry it has largely replaced the through-hole technology construction method of fitting components with wire leads into holes in the circuit board. An SMT component is usually smaller than its through-hole counterpart because it has either smaller leads or no leads at all. It may have short pins or leads of various styles, flat contacts, a matrix of solder balls (BGAs), or terminations on the body of the component.

**CAARA Newsletter**  
**Cape Ann Amateur Radio Association**  
**6 Stanwood Street**  
**Gloucester, MA 01930**

CAARA Newsletter is a monthly publication of the Cape Ann Amateur Radio Association (CAARA). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to CAARA members, and space is available. Material is accepted on a first come, first serve basis. Articles and other materials may be submitted by internet to Jon at k1tp@arrl.net. If possible, material should be in Word format. Material may also be submitted as hard copy to Jon-K1TP or any Club Officer.

All material published in the CAARA Newsletter may be reproduced for noncommercial use provided such use credits both the CAARA and the author of the article. Copyrighted material will not be accepted without accompanying written permission to publish.

The opinions expressed in the CAARA Newsletter are solely those of the editor or other contributors and do not necessarily reflect the opinions of either the Board of Directors or membership of CAARA.

Jon Cunningham-Editor  
K1TP

**Board of Directors- 2008-9**

President: Curtis Wright AA3JE  
Vice Pres: Briggs Longbothum AB2NJ  
Treasurer: Hank McCarl W4RIG  
Clerk: Dean Burgess KB1PGH

**Directors:**

Jon Cunningham K1TP  
William Poulin WZ1L  
Charles Downey N1OCT  
Thomas Andrew KA1GTA  
Richard Copithorne KR1G  
David Delakas KB9YOZ  
James Mondello W1DDX

## Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the Cingular tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations. CAARA also operates the W1GLO repeater on 224.900. The W1RK 443.700 repeater with antennas located in Magnolia is owned and operated by club member Ralph Karcher and it too is available for club use.

The Association is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes a permanent HF station with rotating beam and vertical antenna along with a 2 meter packet station and 2 meter voice and 220 MHz transceivers.

Amateur radio exams are held on the second Sunday of each month at 10:00AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. There is no pre-registration necessary. Contact the head of our VE team Bob Quinn if you have any questions about monthly testing.

Monthly member meetings are held on the first wednesday of each month at 7:30 PM except for July and August.

Each Sunday evening at 9:00pm, the club operates a 2 meter net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

# November CAARA Meeting



Topic: antenna theory



Welcome to the *Massachusetts QRP Conference* (MassCon), the first ever QRP convention in Massachusetts. The purpose of the event is to educate, entertain, and to dare participants to grow, try new things, and expand their knowledge and abilities within the hobby. To do this, we have attracted some of the brightest minds in QRP world, including three members of the [QRP ARCI QRP Hall of Fame](#), to present on a variety of topics such as RF design, filter design, and contesting.

It isn't enough to listen, though, and hence the theme of this event is *Do it!* Never tried portable operations QRP? *Do it!* Never tried to build a kit or dare to design and build your own gizmo with *ugly construction* techniques? *Do it!* Attendees will learn new things, get a bag full of great stuff, and have memories for a lifetime. Peruse the tabs above to learn about the scheduled sessions, speakers, and staff. Then, plan to attend the first ever *Massachusetts QRP Conference*. See you there!

The conference will be held March 12-13, 2010 at the [Westford Regency Inn and Conference Center](#).

The speakers list is set. If you have not visited the [speaker profile page](#), do so! We have an amazing line up including three members of the QRP Hall of Fame and a Nobel Prize winner scheduled to appear! The Event Agenda page has been updated with the schedule for the speakers. Topics and presentation overviews will be posted soon.

### **Tickets are now available!**

APRS Digipeater at CAARA

I installed the APRS digi-peater at the clubhouse this morning. If you go to <http://aprs.fi> and search for W1GLO-10 you'll see it. If you click on Raw Packets you will see the packets transmitted by it and received another station. One tiny interesting bit is the temperature is embedded in the packet data (it precedes "Cape Ann Amateur Radio Club..."). Yikes! I just realized I put in *Club* instead of *Association*. I'll fix that this evening.

The digi-peater will relay APRS packets on 144.390 MHz to other stations—hopefully iGates—that will relay the packets to the APRS-IS database so they can be seen by programs/websites such as [aprs.fi](#).

The digi-peater is attached to the FT-7100 2m rig in the downstairs operator's station and operates continuously. I will eventually (soon) will have the system set up to easily switch between APRS digi-peating and normal 2m phone operation. There is no issue in switching the 2m station to phone operation as the digi-peating function is a fill-in service during most of the time—and very much appreciated by the APRS community. Check the Yahoo group APRSNE.

Stan

W4HIX

### **Hello to all CAARA Members,**

The Board of Directors would like to take this time to remind the membership that if you leave any of your personal amateur radio equipment, kits, parts, test equipment, antennas, etc. at the clubhouse or bring any of your personal equipment to any club sanctioned event such as Field Day, CAARA will not be held financially responsible if anything unfortunate occurs, such as your equipment being stolen, damaged, etc. As much as we try to keep the clubhouse a secure place, CAARA cannot guarantee the safety of your equipment. We suggest you purchase ham gear insurance thru ARRL, etc. to protect your investment. If you have any questions about his policy you may e-mail me at [dburg101@aol.com](mailto:dburg101@aol.com)

73's Dean Burgess KB1PGH-CAARA Clerk

Here's a list of reference websites

[www.spaceweather.com](http://www.spaceweather.com)

[www.eham.net](http://www.eham.net)

[www.qrz.com](http://www.qrz.com)

[www.arrl.org](http://www.arrl.org)

[www.nerepeaters.com](http://www.nerepeaters.com)

[www.echolink.org](http://www.echolink.org)

[www.near-fest.com](http://www.near-fest.com)

[www.hamtechnet.com](http://www.hamtechnet.com)

[www.ac6v.com](http://www.ac6v.com)

[www.eqsl.cc](http://www.eqsl.cc)

[www.aa9pw.com](http://www.aa9pw.com)

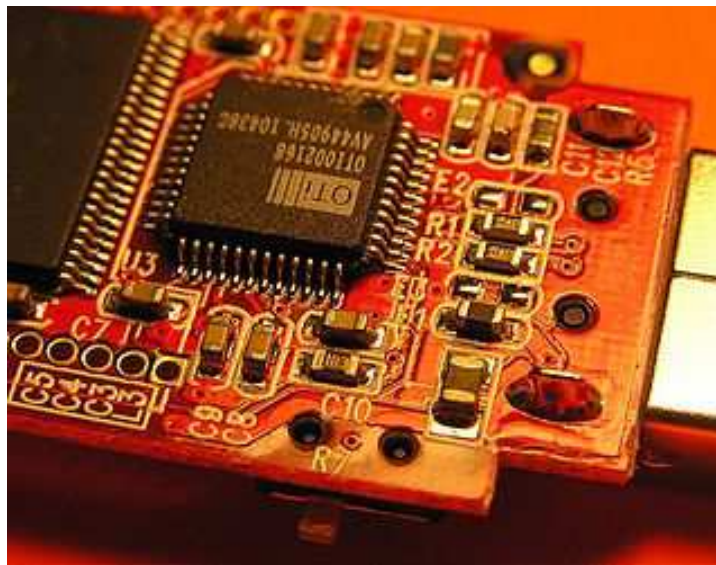
[www.cq-amateur-radio.com](http://www.cq-amateur-radio.com)

[www.dxzone.com](http://www.dxzone.com)

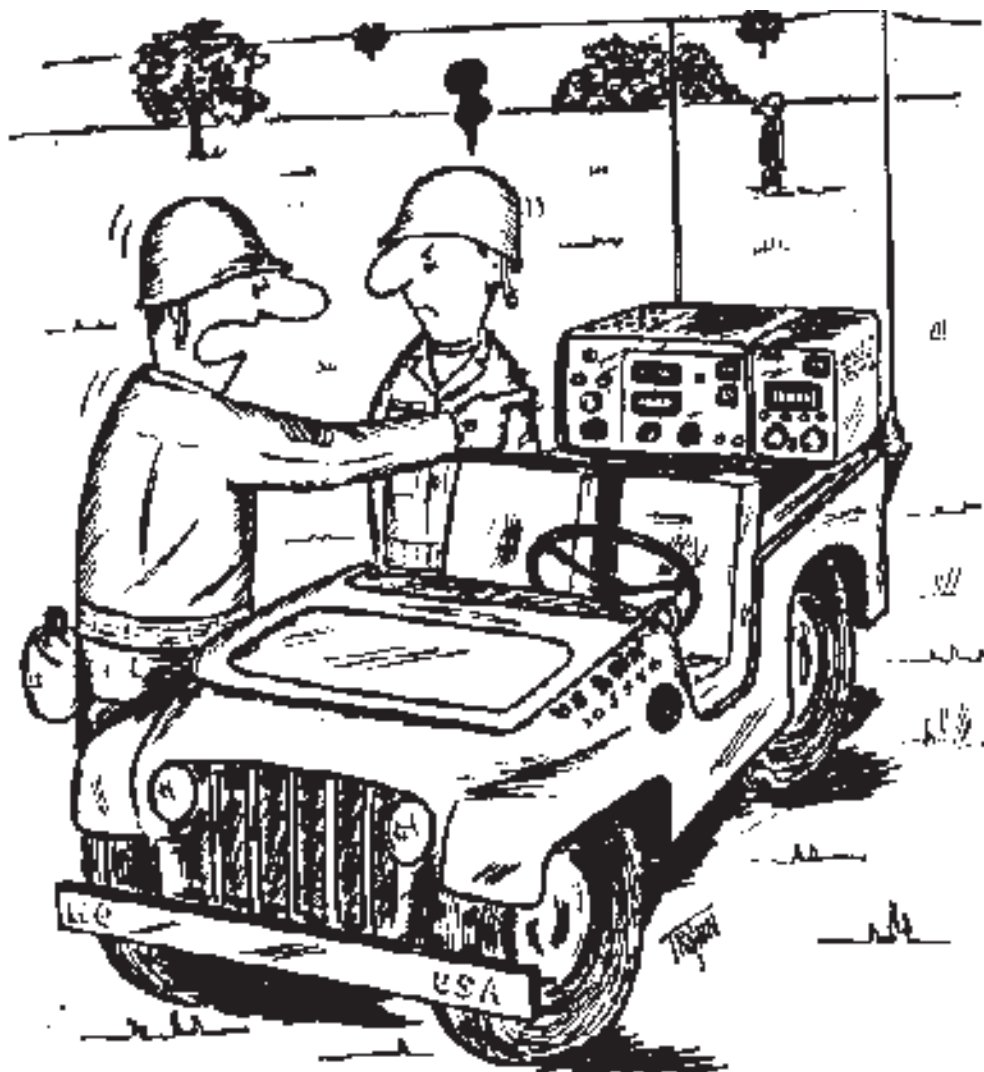
[www.vhfdx.net](http://www.vhfdx.net)

73's

Dean



Don't miss the talk on Surface Mount Technology  
at the club on Wednesday night, December 2, 2009



"I don't care if division doesn't send QSL cards,  
Kolderup . . . GET ON THAT RADIO!"

## CAARA FLEAMARKET held on November 14, 2009 at the Pigeon Cove Circle, Rockport, MA

The club fleamarket sold out all of the gear they brought over from the clubhouse and managed to make over \$850.00. The proceeds will almost cover our lease payment to the city for a year! Thanks to Dick-KR1G for heading up the event and a bunch of other hams for all the planning, cooking, shopping, advertising, footwork, lugging and lifting, cleanup, etc..



One of the most popular vendors, Steve-W1FSK, who always has tons of goodies for sale at very reasonable prices.



Hank-W4RIG and Bill-WZ1L discuss the food, weather, and ham radio.



Things started slow due to the fact we were experiencing a winter NorthEaster with lots of rain and wind but things picked up later in the morning.

Curtis-AA3JE (on the left) checking out items for sale on the CAARA club table.



Bill-WZ1L talks to Sue-N1XQW while Jen takes orders for breakfast and lunch customers. Thanks for all the help in the kitchen!

## Donated and Surplus Equipment Policy- June 2009

CAARA rarely has surplus or donated equipment available for sale. Most valuable items are kept by the club and used till used up. It has happened that good stuff has been donated, however, so the following rules are established so that people can be confident that all donations will be handled properly.

We have a new policy because the old policy (March 2007) was too complex.

1. All gear to be donated to CAARA becomes CAARA property as soon as it comes through the front door.
2. The Head of the House Committee, or any Officer of the Club in his or her absence, shall estimate the value of the item and determine if it is to be kept or sold.
3. If it is less than \$20 it shall be labeled as to price and put on the junk table, where it can be purchased by anyone, first come first served.
4. If it is more than \$20, the clerk shall list it in an all hands email or in the newsletter along with the recommended price.
5. The first club member to hand over the recommended price after it is published shall have it.

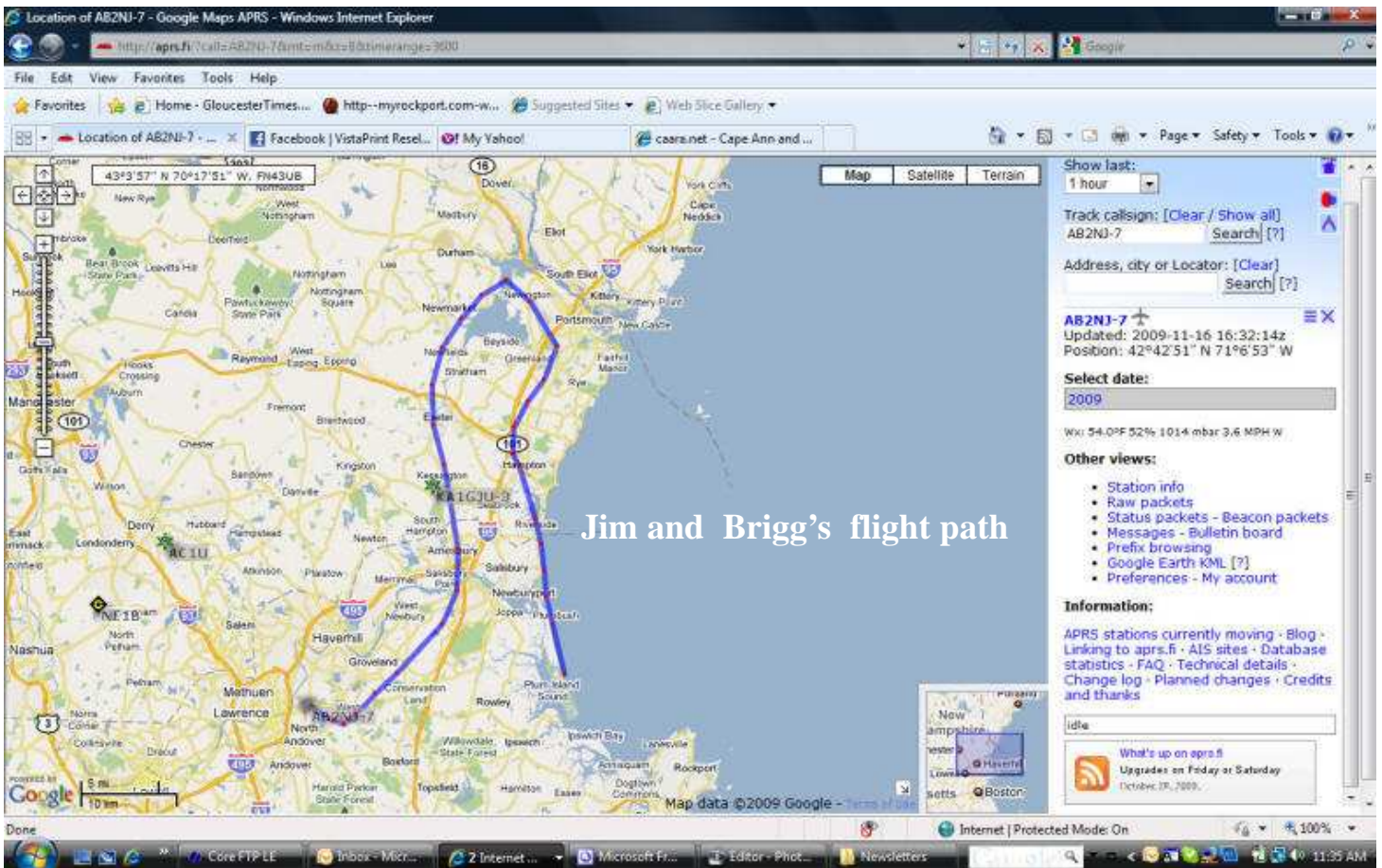
Club members are advised not to get too excited about this policy, as there has been no donated item worth more than \$20 that the club has not kept in the last 3 years.



## CAARA MEMBERS TRACK THEIR FLIGHT WITH APRS FOR ALL TO WATCH!

W4DDX- Jim and AB2NJ- Briggs went Aeronautical Mobile on 2 meters on Monday, November 16th around noontime and tried out some APRS Tracking gear that Stan-W4HIX put together. The google map was available to anyone with internet access at [www.aprs.fi](http://www.aprs.fi). The map below traces the flight, aircraft speed, and elevation starting on Plum Island and going up into NH and eventually landing at the airport in Lawrence, MA. We talked to them via the club repeater on 145.130....fun was had by all not to mention the learning experience we all gained. *see next page*





Jim and Brigg's flight path

Hello to all CAARA Members,

We are looking to book our future club members meetings in 2010. We are looking for help from other members on getting anyone who wants to do a presentation about amateur radio or even anything in the technical or scientific field. We have January open so far, February is booked but the March thru May meetings are open as well. If you anything to help us out please e-mail me at [dburg101@aol.com](mailto:dburg101@aol.com)

73's

Dean Burgess KB1PGH

CAARA Clerk

CAARA would like to announce the addition of two new members to the club who happen to be brother and sister. Craig W Hodsdon -N3MUI of Collingswood, N.J. and Ruth Hodsdon -KB1SXO of Gloucester, MA. You may have heard both of them on the Sunday CAARA net and Ruth has been to the Sunday morning gathering already.

Be sure to wish them a warm welcome to the club when you meet them on or off the air. We welcome all new members to attend monthly Member or Board of Director meeting's as well as the many club sponsored activities.

If you need help on which radio to buy, which antenna to put up, help soldering a coax connector...just ask! One of us will be glad to "Elmer" you and get you on the air. There are no dumb questions.

## Nov. 16, 1904: Vacuum Tube Heralds Birth of Modern Electronics

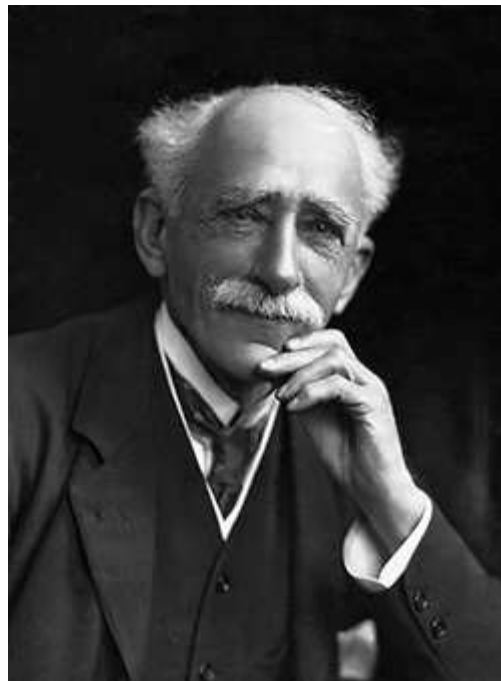
**1904:** British engineer John Ambrose Fleming invents and patents thermionic valve, the first vacuum tube. With this advance, the of modern wireless electronics is born.

Although the Supreme Court eventually invalidated Fleming's patent — ruling that the technology he used for his invention already known — he remains the acknowledged inventor of the vacuum tube, a diode (having two electrodes) that would have reaching applications. The tube was standard equipment in radio receivers, radar sets, early television sets and other forms of electronic communication for at least half a century, until it was replaced by solid-state electronics in the mid-20th century.

The principle of [thermionic emission](#), essentially the transmission charged current using a heated conductor, was certainly well-understood before Fleming incorporated it into his tube. It was reported in 1873, and a number of other engineers and physicists including [Thomas Edison](#) — had experimented with it.

Fleming's vacuum tube, however, represented a major breakthrough in the technology.

For his work, [Fleming received a knighthood](#) in 1929 and was awarded the Medal of Honor by the Institute of Radio Engineers (now the Institute of Electrical and Electronics Engineers) in 1933.



the  
age

U.S.  
was

far-

of a

first  
—



Fleming lived long enough to see the fruits of his labor literally save Britain during World War II. Radar sets using Fleming's diodes proved decisive in the Battle of Britain, allowing a relatively small number of British fighter planes to effectively turn back the *Luftwaffe's* onslaught against the home island.

Fleming died in 1945 at the age of 95.

### WHAT KIND OF ANTENNA IS THAT IN THE PICTURE ON THE LEFT?

Well, it is a Chameleon V1 that has been causing quite a stir among hams who want a portable antenna for 10-80 meters and 2/6 as a bonus. It is about 9 feet tall and breaks in half for storage and is rated very high at Eham.com under product reviews.

Hank-W4RIG and Jon-K1TP purchased the antenna recently and will share their thoughts on this antenna in next month's issue. Hank is using his as a base antenna setup at his qth and Jon is using his as a portable antenna only.

Stay tuned for a hands on product review.

## 2009 CAARA Christmas Party, December 12 at 6:00pm

The Cape Ann Amateur Radio Association will hold its Christmas Party for it's members and their families on Saturday December 12th at the Pigeon Cove Circle Center on 6 Breakwater Ave in Rockport Massachusetts. The doors will open up at 5 PM for set up and the party will start at 6 PM. There will be a pot luck covered dish dinner. There will be door prizes and there will be a yankee swap. If you bring a covered dish dinner you get one free ticket for the door prize raffle and door prize tickets will be a dollar per ticket so don't forget to bring a few extra dollars to help the club in our fundraising doorprize raffle. The price limit for the gifts for the yankee swap will be \$ 5.00. If you have any questions or would like to bring a pot luck dinner you can contact me at [dburg101@aol.com](mailto:dburg101@aol.com).

73's

Dean Brugess KB1PGH

Start address: A Piatt Andrew Bridge

End address: 6 Breakwater Ave Rockport, MA 01966

Start at: A Piatt Andrew Bridge

1. Head east on MA-128 N - 0.7 mi
2. At the traffic circle, take the 2nd exit and stay on MA-128 N - 0.8 mi
3. At the traffic circle, take the 2nd exit and stay on MA-128 N - 0.9 mi
4. Turn left at Eastern Ave/MA-127 N Continue to follow MA-127 N - 3.1 mi
5. Turn left at MA-127 N/Main St/Railroad Ave Continue to follow MA-127 N - 1.8 mi
6. Turn right at Breakwater Ave Destination will be on the left - 174 ft



## What are baluns?

“A transmission line transformer for converting **balanced** input to **unbalanced** output or vice versa. It may or may not provide wide frequency range impedance transformation depending upon the configuration used.”

An old typical usage of the balun was (and still is) with TV antennas. The [folded dipole](#) is part of a yagi antenna which looks something like a pole with rods set across it at right angles. The second last one is folded into an oblong or rectangular shape. A folded dipole exhibits two important characteristics (a) its [bandwidth](#) is good for over an octave (e.g. 50 Mhz to 100 Mhz or say 120 Mhz to 240 Mhz) AND its characteristic impedance is a more or less a constant 300 ohms.

In earlier days extensive use was made of 300 ohm twin lead [ribbon cable](#) to feed the signals to the [TV receiver](#). BTW you can use just a length of 300 ohm ribbon cable to make a folded dipole.

When colour (or [color](#) if you prefer) TV was introduced the ribbon cable often created problems which could be rectified by the use of co-axial cable. This is not strictly correct because coax had earlier uses in TV because of other problems such as ghosting which became intolerable with the introduction of colour.

Now 300 ohm coax can be and is made. However 50 and 75 ohm cable is preferred for a variety of reasons. Our [folded dipole](#) also exhibits a “balanced” feed characteristic whilst coaxial cable has an “unbalanced” characteristic. Two problems. Each solved by the use of the balun.

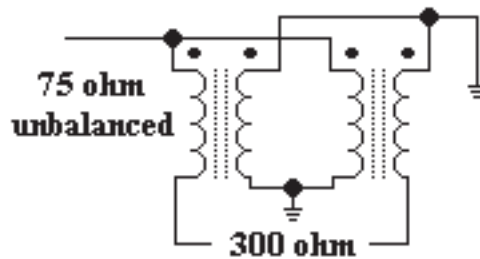


Fig 1. - Schematic of a balun transformer

Perhaps we should have some clarification about this balanced versus unbalanced jazz. Mentally visualise it this way. If we have a plus 12V D.C. supply with ground return. That could be regarded for our illustrative purposes as the unbalanced 75 ohm input. On the other hand we could a symmetrical power supply referenced to ground which provides a + 12V D.C. AND a - 12V D.C. voltage. The only difference is we are dealing with RF which of course is very high A.C.

A practical 300 / 75 ohm balun could consist of four pieces of 0.4mm wire wound 2 1/2 turns through a balun core (look a bit like [binoculars](#) ). In so doing we have achieved our two goals, (a) the impedance transformation and (b) gone from unbalanced to balanced.

## IRCs - important information

Please be aware that in about 5 weeks time, the IRCs that have been used for the last few years will no longer be valid at the post office.

**31st December 2009** is the dead line for the current style ... but it's best to stop using them by end of November to allow transit time.

The new one has the expiry date of 31st December 2013 ... just above the 'UPU' logo at your right hand side.

Please start using them *immediately* for safety.

# St. Croix Island DX Christmas Festival

**Sharon, K7WZB** and **Garry, K9WZB** will be operating as **K2V** from the island of St. Croix (USi VI002S, WLOTA

LH-2477, Grid FK77), U.S. Virgin Islands (NA-106) from 2-14 December.

QRV all bands 160-6 metres.

They will be monitoring 6 metres most of the time for openings to US and Europe.  
Operating SSB, RTTY, CW and PSK-31 all bands.

QSL via K9WZB, direct only (No Bureau!).

Further info at QRZ.com under the callsign [K2V](#).

## Genesis Radio Multi-band SDR kit

An Australian company will be producing a new multi-band low power Software Defined Radio (SDR) transceiver kit.

The **Genesis G59** transceiver will cover the Amateur bands from 1.8 to 54 MHz and produce up to 10 watts output with the GPA10 amplifier.

A version with extended band coverage, the G59D, covering the increasingly popular 70 MHz band should be available next year.

Further information on the G59 is available at  
<http://www.genesisradio.com.au/G59/>

Genesis Radio

<http://www.genesisradio.com.au/>

## OSCAR-11 heard again

**OSCAR-11**, built by the University of Surrey's Spacecraft Engineering Research Group, ceased operating in 2008 after 24 years service. Now its signals have been heard again on 145.826 MHz FM.

In a posting on the AMSAT Bulletin Board **Clive G3CWV** writes:

I have received two reports from **Keith N4ZQ** (EL88ob) that he has heard UO-11 on 19 November at 13:33 - 13:43, and on 22 November at 13:02 UTC.

He has sent me a WAV file of the second pass. Unfortunately, it's a very low elevation pass, and probably will be difficult to decode, as it contains a lot of noise. However it's definitely UO-11.

I'll be interested in receiving any other reports.

The frequency is 145.826 MHz. Mode is FM.

# US Senator wants to eliminate Radio/TV Martí

US Senator Russ Feingold, a member of the Senate Budget Committee, recently announced the launch of his “Spotlight on Spending” series to highlight actions Congress can take to reduce the deficit. The first featured provision is the elimination of **Radio and TV Martí**.

“This relic of the Cold War attempts to broadcast radio and TV signals into Cuba that virtually no one tunes in to,” Senator Feingold said. “Government studies show that Radio and TV Martí are riddled with problems, and fall short of journalistic standards. As we progress toward a more modern and constructive relationship with Cuba, Radio and TV Martí no longer have any real diplomatic or fiscal purpose. I plan to bring up this issue when the Senate takes up President Obama’s recently announced nominees to the Broadcasting Board of Governors.”

A January 2009 report by the Government Accountability Office (GAO) found that Radio and TV Martí broadcasts face jamming by the Cuban government. According to the GAO, the best available research suggests that the audience for Radio and TV Martí is small, and its effectiveness uncertain.

BBG’s International Broadcasting Bureau (IBB) also found that Radio Martí fails to meet certain journalistic standards, “particularly in the areas of balance and objectivity.”

During a June 2009 hearing before a House Foreign Affairs Subcommittee, a GAO official testified that there is “limited information to help assess the relative success on a return of investment for each of the transmission methods.”

During the same hearing, John Nichols, a Professor of Communications and International Affairs at Penn State University testified that “...even if (Cubans) are opposed to the Castro government...they are going to look for more credible sources of information and entertainment.”

Senator Feingold argues that the political environment has changed significantly since the inception of Radio and TV Martí, and President Obama’s commitment to international diplomacy and dialogue offers a more effective way to engage with the people of Cuba.

The Obama administration has already loosened restrictions on Cuban Americans’ visits to Cuba, and the White House and Congress are considering easing travel restrictions and other ways to normalize relations.

**ARRL** is pleased to announce the availability of a new suite of Amateur Radio mobile software — designed specifically for use with the Apple’s iPhone and iPod Touch. The applications — or “apps” — are named [ARRL Technician](#), [ARRL General](#) and [ARRL Extra](#) and function as an electronic version of practice exam flash cards. Amateur Radio exam candidates can use the applications as a study companion to the [ARRL license manuals](#) and classroom instruction. The apps include all the possible questions and answers that will be on each of the license tests. Users can flag questions that need more review, segment questions for study by sub-element, or even study the questions in a random order.

The ARRL apps are produced and sold by McSnyder Software who has partnered with ARRL to provide the iPhone app series. McSnyder has also produced study applications for other organizations — including exam preparation software for standardized educational testing in Texas, as well as US Citizenship immigration testing. “We are excited to introduce Amateur Radio and ARRL into the rapidly expanding mobile and portable technology arena,” said ARRL Marketing Manager Bob Inderbitzen, NQ1R. “Not only do these applications demonstrate ARRL’s commitment to users of these popular devices, the software helps promote Amateur Radio outside of our traditional publication channels.” The ARRL apps are available for \$1.99 each on Apple’s iTunes “App Store.”

## APRS IS ALIVE AND WELL AT CAARA

Attached is a screen shot of the track that I did on Saturday evening and Sunday morning. Almost all of the packets were routed through W1GLO-1 at the club. I've also included a photo of the GPS (small puck), OpenTracker+ (OT+) from Argent Data Systems ([www.argentdata.com](http://www.argentdata.com)), the FT-51R I won at the Christmas party last year and an inexpensive mag-mount antenna. Attached to the OT+ is an interface that I made which includes a 9V battery that powers the OT+ and GPS for several hours.

This is the gear that went with Briggs and Jim, except for the antenna.

Stan-W4HIX



# FOR SALE-**VIBROPLEX**<sup>®</sup>



Mitch, W4OA, Owner of **VIBROPLEX**, is retiring.  
Please e-mail [w4oa@vibroplex.com](mailto:w4oa@vibroplex.com) for details  
Substantial Investment Required



**IAMBIC DELUXE**



**KNOW CODE KEY**



**BLUE RACER**

*A CQ Advertiser Since 1947 • AMERICAN MADE*

**The Vibroplex Company, Inc., 11 Midtown Park, E., Mobile, AL 36606  
1-800-840-8873 FAX 1-251-476-0465 email: [support@vibroplex.com](mailto:support@vibroplex.com)**

Mastercard, Visa and Amex accepted • Dealers wanted outside the US. email or FAX

**See all of our products at [www.vibroplex.com](http://www.vibroplex.com)**

## **FCC Looks to Revise, Clarify Vanity Call Sign Rules**

On Wednesday, November 25, the FCC issued a *Notice of Proposed Rule Making (NPRM)* — [WT Docket No. 09-209](#) — seeking to amend the Commission's Amateur Radio Service rules to clarify certain rules and codify existing procedures governing the vanity call sign system, as well as revise certain rules applicable to club stations.

According to the FCC, almost 80,000 licensees have replaced their sequentially issued Amateur Radio call signs with a vanity call sign since the program began in 1996. When the program began, the Commission established what they called “the broad outlines” of the vanity call sign system, concluding that call signs generally should not be available for reassignment for two years following the death of a licensee, or expiration or termination of the license for that call sign. In doing so, the Commission made exceptions for former holders of the call sign, close relatives of a deceased former holder and club stations of which a deceased former holder was a member.

The Commission did not, however, specify all of the procedures governing the vanity call sign system, but indicated that the procedures “would be set out in the *Public Notices* announcing ‘starting gates’ for the groups receiving initial priority and that the procedures would be adjusted from gate to gate as experience dictated.” The procedures announced in the *Public Notices* announcing the gates are still in effect, but they are not set forth in the Commission's Rules. The *NPRM* states that the FCC “now believe[s] that certain provisions should be codified in our rules, and others added, so that the vanity call sign system will be fair, equitable and transparent to all amateur service licensees. The Commission also decided in the *Vanity Report and Order* [issued in 1996] to resume issuing new club station licenses. We believe that certain rule changes to the club station licensing rules may be appropriate.”

## **Availability of Call Signs Assigned to Stations of Deceased Licensees**



Normally, the call sign of a deceased amateur is unavailable to the vanity call sign system for two years after the license expires or is canceled. With the *NPRM*, the FCC wants to clarify the process by which such call signs become available for reassignment.

In order for a vanity call sign to be assigned to an amateur, the call sign must be assignable at the time the application is processed. Even if a licensee is deceased, the call sign is not available if the license is still active in the FCC database. When the FCC receives what they call “proper documentation of the licensee’s passing” (a signed request for license cancellation accompanied by a copy of a death certificate, an obituary or data from the Social Security Death Index [SSDI] that shows the date of death), they then cancel the license as of the licensee’s date of death.

“We propose to amend our rules to codify these procedures by adding a new paragraph to [Section 97.21](#),” the *NPRM* states; currently, the procedure for canceling a license due to the grantee’s death is [outlined on the FCC’s Web site](#), but is not codified in their rules. “We believe that this will make our cancellation process more equitable and transparent, and facilitate the availability of desirable call signs,” according to the *NPRM*.

The FCC calls their rules “ambiguous” concerning call signs that become available for reassignment “as to whether the waiting period runs from the date of death or the date that the Commission cancels the license in light of the licensee’s death.” As such, they are proposing to amend the rules “to clarify that a license that is canceled due to the licensee’s death is deemed to have been canceled as of the date of death, regardless of when the licensing database is updated to reflect the licensee’s death.”

But according to the FCC, this “can create an arguably inequitable situation. We often receive a request from an unrelated person to cancel the license of a licensee who died more than two years earlier, and a vanity application from the same person requesting the deceased’s call sign.” The Commission stated in the *NPRM* that since the cancellation request is not usually processed before the application requesting the call sign is received, only the applicant knows that the deceased’s call sign is about to be available for reassignment.

The FCC proposes to modify their processes to ensure that the deceased’s call sign is unavailable to the vanity call sign system for at least 30 days after the staff updates the licensing database to reflect the licensee’s death. “Specifically, we propose to amend the rules to provide that the call sign shown on a license that is canceled due to the death of a licensee more than two years earlier remain[s] unavailable to the vanity call sign system for 30 days following the date the staff takes action to cancel the license. Providing a short period after we process a cancellation request would allow the assignability of a desirable call sign to become known, and would provide an opportunity for other licensees to apply for the call sign. This would further the major concern expressed by the Amateur Service community that the vanity call sign system be fair.”

### **Exceptions to the Two Year Waiting Period**

In certain situations, the FCC will issue a vanity call sign to an amateur before the two year waiting period has expired. Back in 1996 when the vanity program came into being, the FCC made exceptions, allowing those licensees who formerly held a call sign to apply for that call sign ahead of other licensees. The Commission noted that such an exception “was perceived as fair by the amateur service community generally, and this exception has been included in various public announcements detailing the procedures of the vanity call sign system.” Since this exception is noted in the FCC’s rules, the *NPRM* seeks to amend the rules reflect this exception.

With the advent of the vanity call sign program, the Commission also decided to allow close relatives of a deceased former holder of a call sign to apply for that call sign ahead of other licensees, provided that the relative holds the requisite class of operator license. The Commission defined “close relatives” to include, among others, an in-law of the deceased former holder. In order to avoid any confusion, the FCC proposes to amend [Section 97.3](#) to define the term “in-law” to include only a parent or stepparent of a licensee’s spouse; a licensee’s spouse’s sibling; the spouse of a licensee’s spouse’s sibling; or the spouse of a licensee’s sibling, child

or stepchild.” The other “close relatives” are the deceased former holder’s spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, stepbrothers, stepsisters, aunts, uncles, nieces and nephews.

Another exception to the two year waiting period applies to licenses for club stations who request the call sign of a deceased licensee “when the club station trustee has the written consent of a close relative of the deceased. The exception was intended to apply only to clubs of which the deceased was a member, but this limitation is not reflected in our rules (though it is specified in other Commission pronouncements regarding the vanity call sign system).”

### **Ineligible Applicants**

When a vanity call sign application is granted, the call sign currently assigned to the licensee’s station is surrendered and is not available to the vanity call sign system for two years. Occasionally, the FCC said, vanity call sign applications have been granted to applicants who “erroneously or fraudulently indicated that they fell within an exception to the two-year waiting period. Sometimes, after the situation is brought to the applicant’s attention, the applicant applies for and is assigned another call sign, thereby surrendering the improperly obtained call sign.”

Under the usual procedure, the FCC stated that the improperly obtained call sign would not be available to the vanity call sign system for another two years, but because this additional delay would be “unfair to prospective applicants who expected the call sign to become assignable at the end of the original two-year period, the [Gate 3](#) and [Gate 4 Public Notices](#) specifically stated, ‘Where a vanity call sign for which the most recent recipient was ineligible is surrendered, cancelled, revoked or voided, the two year requirement does not apply.’

The policy mentioned in the Gate 3 and Gate 4 Public Notices is not codified in the Commission’s rules. As such, the FCC proposes to amend [Section 97.19\(c\)](#) to clarify that “a new two-year period does not commence when the most recent recipient acknowledges, or the Commission determines, that the recipient was not eligible to be assigned the call sign. Information regarding the acknowledgement or determination of ineligibility will be posted to the license in the Commission’s Universal Licensing System ([ULS](#)) so that other licensees will be able to recognize that the surrender did not commence a new two-year waiting period.”

### **Other Club Station Licensing Issues**

For purposes of club station licensing, the FCC defines a club as “a group with at least four persons and that has a name, a document of organization, management, and a primary purpose devoted to amateur service activities consistent with [Part 97](#).” A licensee trustee is designated by an officer of the club to hold the club station license grant.

The *NPRM* stated that sometimes the Commission receives disputes regarding just who is the club’s trustee in the context of a contested application to modify the license to change the trustee: “In order to avoid Commission involvement in what are essentially internal club matters, and to ensure that an application changing the trustee of a club station reflects the intent of the club, we propose to amend the rules to require that applications requesting a change in trustee include documentation signed by an officer of the club when the application is submitted to the Club Station Call Sign Administrator ([CSCSA](#)). Additionally, we believe that by accepting applications only from the licensee the club station record in ULS shows is the trustee of the club station, the CSCSA can minimize the number of disputed applications that are filed with us.”

While the Commission’s rules limit individuals to holding only one operator/primary station license grant and, therefore, one call sign, “there is no similar limit on how many license grants a club may hold,” the *NPRM* said. “This affords club stations an advantage over individuals seeking desirable call signs, reduces the pool of vanity call signs available to individuals and other club stations, and increases the possibility of conflict over particular call signs. We therefore propose to limit club stations to holding one license grant and, consequently, one call sign. Clubs that currently hold more than one call sign would not be allowed to obtain any more call signs, but could renew or modify their existing station license grants.”

The FCC also proposes to permit Novice class licensees to serve as club station trustees. The Commission noted that there was an historical prohibition against Novice class licensees serving as club station trustees since Novice licenses originally were not renewable. Because such licenses now may be renewed on the same basis as any other Amateur Service license, “we believe that this prohibition is no longer necessary,” the *NPRM* noted.

### **FCC Seeks Comments on Proposed Changes**

In its *NPRM*, the Commission said that it is their belief “that the public interest will be served by amending certain rules in order to make the Amateur Service’s vanity call sign system more equitable and transparent. We also propose changes in the rules governing club station licensing, to promote equitable and administratively efficient processes. We therefore seek comment on these proposed rule changes. In addition, we invite commenters to propose any other amendments to the rules governing the vanity call sign system and club station licensing.”

## **Special Event Station BT3WX for launch of XW-1**

The Amateur Radio satellite **XW-1** is scheduled for launch on December 20 and a special event station **BT3WX** will be run to celebrate the launch.

The XW-1 will be the first Amateur Radio satellite to be launched by Beijing and it will carry a 145 to 435 MHz linear transponder for CW/SSB as well as a FM 145/435 transponder.

**Alan Kung BA1DU** has provided this information on the AMSAT Bulletin Board:

To celebrate the launch of XW-1 China first amateur satellite and inspire radio amateurs and young people learning to amateur satellite communication technology and space knowledge, enthusiasm, popular amateur satellite communications activities in China, AMSAT-China will set up special event station in Taiyuan, Shanxi Province of China, the callsign is BT3WX, the station will be QRV on all of HF amateur bands from 10 to 160 meters and on VHF/UHF amateur satellite bands, including FM, SSB, CW, RTTY and PACSAT modes.

Will have come from radio amateurs around the China, teachers and students, the State Radio Regulation Bureau of China, the China Association for Science Technology, the Chinese Society of Astronautics and the Chinese Radio Sports Association officials, as well as journalists will be more than 200 people will participate in the activities of BT3WX. The operations start from now until the end of the launch.

BT3WX operating team is as follows:

Team leader: BA1EO, Fan

Operation and Technology support: BD5RV, Michael Chen

Press release and QSL Manager: BA1DU, Alan Kung (P.O.Box 8091, Beijing, CHINA 100088)

The operators including:

BA4RB, BA4RN, BA4RS, BA4RX, BA4TA, BA4TB, BD4IBW, BD4REB, BD4RPJ, BD4XX, BH4REQ, BA6AA, BD6BW, BA7CK, BA7JG, BD7PZL

Equipments:

HF stations:

XCVR: IC-756PROIII, IC-7000

Antennas:

160/80M GP

40M 3ele Yagi

20/15M 5ele Yagi  
10M 3ele Yagi  
WARC GP  
Power Amplifier: GO-2KW

Satellite station:

XCVR:IC-910H  
Antennas:VHF 7ele cross Yagi,UHF 13ele cross Yagi

BT3WX Communications Awards:

HF Awards:

To complete two-way communications with the BT3WX on 9 different bands / modes (the same band in different modes as a different band / mode), can apply BT3WX HF communications awards.

Satellite Awards:

To complete two-way communications with BT3WX station through at least two different mode of transponders (which can through the same satellite), can apply BT3WX satellite communications awards BT3WX

Communications Awards applications mailing address:

AMSAT-China, P.O.Box 8091, Beijing, CHINA 100088

## **Atom-smasher sets energy record By Paul Rincon Science reporter, BBC News**

**The Large Hadron Collider (LHC) experiment on the French-Swiss border has set a new world record for energy.**

The LHC pushed the energy of its particle beams beyond one trillion electron volts, making it the world's highest-energy particle accelerator.

The previous record was held by the Tevatron particle accelerator in Chicago.

Officials say it is another milestone in the LHC's drive towards its main scientific tests set for 2010.

The LHC is designed to smash together beams of sub-atomic particles at just under the speed of light. Researchers hope to see signs of new physics in the aftermath of the collisions, helping them unlock the secrets of the Universe.

Operated by the European Organisation for Nuclear Research (better known by its French acronym Cern), the LHC is built inside a 27km-long circular tunnel.

### **'Pilot beam'**

"We are still coming to terms with just how smoothly the LHC commissioning is going," said Cern's director general Rolf Heuer.

"It is fantastic. However, we are continuing to take it step-by-step, and there is still a lot to do before we start physics in 2010. I'm keeping my champagne on ice until then."

Until now the LHC had been operating at a relatively low energy of 450 billion electron volts.

On Sunday, engineers increased the energy of this “pilot beam”, reaching 1.18 trillion electron volts at 2344 GMT.

The previous record of 0.98 trillion electron volts has been held by the Tevatron accelerator since 2001.

The LHC is eventually expected to operate at some seven trillion electron volts.

Last week, the machine circulated two beams of protons for the first time and carried out its first low-energy beam collisions.

Researchers working on the collider have said they are delighted with the quick progress made since the machine restarted on 20 November.

The LHC had to be shut down for repairs shortly after its inauguration in September 2008 when an electrical fault caused one tonne of liquid helium to leak into the collider’s tunnel.

## **RESOLVING RFI ISSUES WITH A NEIGHBOR**

### **DO’S AND DON’TS**

ARRL publishes an RFI pamphlet, written specifically to help explain interference to your neighbors. To get a couple of copies, send an SASE to the ARRL Technical Department Secretary, 225 Main St, Newington, CT 06111, along with a request for “2 RFI pamphlets.” The text of this pamphlet is available on ARRL’s Web page, but the actual printed pamphlet is more effective with your neighbor than a downloaded Web page, in most cases.

Don’t take immediate responsibility for the problem. Make it clear that although you are the source of an outside radio signal, the neighbor’s device is supposed to be designed to reject it. Do not perform modifications on AC powered equipment that is not your own. Remember — house AC power is dangerous and you may be blamed if anything EVER goes wrong with the device or house wiring. These modifications must only be performed by qualified service personnel!

Install a low-pass filter on your HF station.

For telephone interference problems, offer to loan the neighbor an RF resistant telephone (see telephone section) for testing and have him unplug all other phones.

In regards to problems with close neighbors complaining about your radio interfering with their computers: Tell them to take their problem up with the computer manufacturer. DO NOT, under any circumstances, work on a neighbor’s computer even if he is a close friend. The reason for this is that at a later date if and when any problem occurs (especially a data crash) you will be blamed. FCC rules on computer RFI are simple and clear cut. Computers are part 15 devices and as such they may not interfere with any licensed radio service and must accept any interference

### **GETTING THE FCC INVOLVED**

The FCC no longer investigates RFI complaints to telephone, TV or entertainment systems. You can call their 800 number (888-CALL-FCC) and listen to the FCC’s RFI message. It is educational. You might want to give this number to your complaining neighbor since it tells him it’s most likely his equipment at fault-not yours. You can

also find out how to order The FCC's interference handbook which tells the same story. Get an extra one for the neighbor if you want to be nice of course.

Rectification and overload are both problems with the design of the affected equipment, and after decades of investigation, the FCC knows this. That's why their policy is such as it is now. The FCC cannot get laws enacted to correct this by forcing manufacturers to properly design stuff so they've backed off and are not doing anything about it themselves. If the neighbor is unwilling to cooperate, the FCC won't even want to talk with them. They are instructed by the FCC to contact the manufacturer who made the defective equipment for a solution. Sort of a "free market" solution.

One bit of advice: It really helps to clean up your TV/Stereo & telephones, so that you can point at your equipment saying "My TV/Stereo/Telephone doesn't get any interference, so it must be your equipment." While solving your own RFI issues you'll learn how to help your neighbors with theirs (should they finally ask for help). When helping a neighbor it's a good idea to have another local ham familiar with RFI act as a liaison or 3rd party who is not interested in the dispute. Contact your local club or the ARRL for the name of the local TS (Tech Specialist) who is willing to help out in this capacity.

### **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 a 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.

## **FOR SALE:**

**ASTRON 35 AMP POWER SUPPLY IN GOOD CONDITION \$100.00**

**Contact [K1TP@arrl.net](mailto:K1TP@arrl.net)**

# Simple, Inexpensive Coax Connector Tool

*By Joseph Lawrence, K9RFZ*

I use a lot of PL-259 connectors to build feedline cables for friends and recent Technician hams that need some help getting on the air. I have streamlined the process by using a coax prep tool similar to the DX Engineering DXE-UT-8213 and the K4AVU crimp tool mounted in a bench vise. The slowest step in the process is attaching the connector to the prepared coax. Aside from aligning the connector and making certain the center conductor wires all fit into the center pin, I still use a pair of vise grips to grab the connector and thread it onto the coax outer covering. I take special precautions to assure the vise grip is snug enough so the jaws don't grind the connector and yet not too snug that it deforms the connector. With a little creativity and time, I've replaced the vise grips with a simple and inexpensive tool that protects the connector and requires minimal effort to get the connector all the way onto the coax.

I reused a PL-259 barrel and glued it inside a PVC T-connector with the threads pointed outward. I found the  $\frac{3}{4}$ " with threaded  $\frac{1}{2}$ " PVC connector gives a modest fit to the PL-259 barrel. I used Gorilla Glue and coated the PVC threads before inserting the barrel. This glue expands as it dries and some glue wicked up the connector along the knurled edge.



Prep the coax as usual, but then thread the PL-259 connector into the new tool.



Line up the connector on the coax and twist away.



The T-connector side openings allow you to see when the center conductor has reached the tip of the connector. Just unthread the tool from the installed connector and I'm ready to crimp the connector and solder the tip for another flawless installation. For the price of a PVC connector, a leftover PL-259 barrel, and some glue, I have a tool that does the job quickly every time.