CAARA Newsletter

AN ARRL AFFILIATED CLUB APRIL ISSUE- 2010

President's Corner

by Curtis AA3JE

Wow! What a ride this month!

For those of you who have not been to the club recently, you will find it much changed. We had a huge donation of material prior to the hamfest, and it is not all gone yet. We had a great hamfest, (revenue $1300 and still going up), with wonderful refreshments, and we want to make sure that any member who has any "wasted" space in their home has some old radio gear to fill it up with. If you need ex-military stuff, stop by and give your bid to Dick, Hank, myself or any other member of the BOD. No reasonable offer refused.

Recent news includes a very successful drill with AGH/Beverly Hospital and planning for a busy public service summer. The contest crew is going great guns as is the Morse code class. Events this month include the upcoming SkyWarn training and the spring dinner (April 18th, 4 PM Fortune Palace II, RESERVATIONS MUST BE MADE WITH CAARA CLERK).

Spring is here, the winds are high, and it is just the time for some antenna work. Get up those rickety ladders and bolt something onto the eaves, it's going to be summer soon. By next issue, we will be in serious planning for field day and Islands on the Air (Thatcher's).

Remember, we are getting close to elections in the fall. Think about serving on the Board. We would love to have you.
73
Curt Wright

AA3JE

Hello to all CAARA Members,

The club will be holding a Spring Club Dinner get together for its members and their families on Sunday, April 18th at 4 PM at the Fortune Palace Chinese Restaraunt which is located along the Causeway in Essex.
We will be getting a menu and a price shortly but it is estimated to be at $10 to $12 per person.There will be a cash bar where you can pay for your adult beverages seperately.
If you are planning on attending, please e-mail me at dburg101@aol.com by Friday, April 10th so we can guarantee you a seat.

73's Dean Burgess KB1PGH- CAARA Clerk

A Field Day Planning Meeting is scheduled for Sunday, April 11 at 10AM sharp at the CAARA Clubhouse

Hello CAARA Members,
Some of you may know, Charlie-WI1U has been ill. This morning I spoke with his wife Diane, and here is the update: What began as a cold has become much more serious. He first went to Beverly Hospital on Feb. 3, and went from there to Spaulding for rehab. He took a turn for the worse, and is currently in the ICU at Salem Hospital, in critical condition. He is fighting both staph and lung infections, and he and the family are taking things day-by-day. Charlie is a tough old salt, and we are all hopeful that he will fight his way back to good health. ....*courtesy* ***K1VRA***

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.
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Jon Cunningham-Editor
K1TP

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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.

Here are a few pictures, above is Rick Maybury WZ1B and his daughter Erin Maybury- W1ERN operating SSB during the ARRL International DX contest upstairs in the CAARA clubouse which was held on the first weekend of March.

The picture on the top right is Curtis speaking to the new technician class amateurs that just got their license at Stan's Tech in a Day course. For the next few months CAARA will be elmering these new hams on the basics of getting on the air.In the picture Curtis is explaining on what they should look for in purchasing their first HT and how to program one.

The picture on the right of Stan during his Amateur radio satellite presentation during the regular members meeting. He is holding up his ARROW handheld satellite beam antenna.

YOUNGSTERS IN DXCC

And congratulations also to 8 year-old William Ferguson, KJ4EYZ. This after formally being presented his DXCC certificate at a Virginia DX Century Club meeting on March 16th.by the club's Vice President, Ron Young, W8RJL.

Bill Moore, NC1L, is the ARRL's Awards Branch Manager. He says that William's achievement makes him the youngest full member of the Virginia DXCC, and one of the youngest members of the DX Century Club.

William is the son of Rich Ferguson,, N2XQM. His 10-year old sister Carissa, KJ4EZA, already has 82 countries worked.

We have lot's of young hams in CAARA....who will be next?

Don‘t forget to use the CAARA website amateur radio internet links for easy access to all sorts of amateur rado information. Here are just a few examples that are on there now.

www.hfpack.com This website focuses on portable,qrp and pedestrian mobile amateur radio operations. www.spaceweather.com You can use this website to study the earth-sun envioronment,propogation conditions and pictures of the sun and the new sunspots of cycle 24.

There are two other websites that you should check out, they are:

www.vhfdx.net This website gives real time spotting with graphics of 10 Meters,6 Meters,2 Meters and 440 www.newenglandqrp.org This website shows what is happening in the world of low power operations and kit building in our neck of the woods.

Don‘t forget to use Youtube as a resource as well for anything related to amateur radio.For a suggestion type in “Goathiker” in the search bar and look for “Rooster and Peanuts Goattube” There are a series of videos of a QRP operator who lives out in Colorado and he has two goats with him and he goes into the mountains of Colorado and has little dxepeditions with them with his Yaesu FT 817 and a Buddipole. They are very well produced and are fun to watch.

Amateur Radio Product of the month: If you are looking to operate QRP or portable or you can‘t put up an antenna because of restrictions take a look at an antenna called the Buddipole at www.buddipole.com .

73‘s

Dean Burgess KB1PGH

Zenith’s one-and-only ham receiver

by Joel Thurtell K8PSV

In the art world, when a “one of a kind” masterpiece surfaces, collectors battle for the right to possess a unique treasure. Ham radio collectors are no less frenzied. And as the author discovered, mythical, legendary and lost treasures are occasionally recovered–even by mere mortals!

It’s 1958. You’re a hotshot engineer at Zenith. Your boss gives you a longterm assignment: Design the best amateur radio receiver money can buy. What kind of radio would you build?

Wait! Zenith in the ham radio business? Sure, they made television sets and delved into military electronics. But who ever heard of them manufacturing ham radios back in the fifties?

Well, they did it, but under a different name. Their ham radio products were marketed under the Central Electronics logo. In truth, everything they sold sprung from the fertile brain of ham radio entrepreneur Wesley Schum, W9DYV or his chief engineer, Joe Batchelor, W4EGK — even the fantastic receiver that would be designed by that hotshot engineer at Zenith.

Central Electronics leaped into ham radio history in September 1952, when QST ran Schum’s ad promoting a little gray box that transmitted a then little-used mode of communication called SSSC — single sideband suppressed carrier. We now call it simply single sideband, or SSB, and everybody knows it’s the dominant mode on the amateur high frequency bands.

But in the early 1950s, single sideband was an exotic form of communication. Our standard ham receivers were not designed to demodulate single sideband signals. And for years, many ardent AM operators rejected the new mode.

Sideband transmitters in those early days were homebuilt. It was Schum who conceived of manufacturing a low-cost kit of parts which would give the builder a usable, low power single sideband transmitter. Schum called it the “10-A,” and began shipping kits from his garage in Chicago. Schum became a missionary for sideband, traveling around the country and speaking to every ham radio club willing to give him a little time on their programs.

He recalls receiving a standing ovation from Chicago’s Hamfester’s Radio Club after he demonstrated the 10A. But the going was often rough. Doc Holt, W9VVN, remembers the Hamfester’s Club meeting differently. “The initial response of the audience was one of skepticism and even derision,” recalls Holt. “Many of my ham buddies who were steeped in the AM phone tradition called it ’silly sideband’ or worse yet, ‘duck talk.’ ”

A few curious hams bought 10-As. They discovered that sideband signals, even barefoot 10-watt signals,

could get through when AM was fading or lambasted by interference. Soon, more hams bought 10As. Schum found more garages for assembling the rigs.

Meanwhile, over in Cedar Rapids, Iowa, the head of Collins Radio Co. was listening. Art Collins was used to being king of the pile-ups with his 1,000-watt plate modulated Collins KW-1.

"A guy in Indiana was pinning Art's ears back with reports much better than Art was getting with his KW-1 and rhombic farm," recalls Schum. The Indiana ham was driving a pair of 811As with a Central 10-A. His power output was less than the KW-1, but single sideband was more effective.

Collins called Schum. He wanted Schum to sell him a 10-A.

Problem was, there were no factory-wired units on hand.

Schum told Collins, "If you think you have anybody out there who could put a kit together, we could sell you a kit."

Collins' response: "I think we could manage, Wes."

"I found out later they didn't read the assembly instructions and went at it in typical ham fashion and it took them a month to get it running," recalls Schum.

A few months later, Collins called to place another order. "We'd like to buy three of them, Wes, but no more kits."

Business was good. The 10-A was followed by the improved 10-B, then the 20-A, which was a bandswitching rig, covering 160 through10 meters, with 20 watts of RF output. Central also offered accessories such as the MM-1 and MM-2 station monitoring scopes, and the Model A and Model B sideband slicers to convert older receivers to sideband reception.

Meanwhile, Schum noticed a potential competitor. In Georgia, Joe Batchelor was converting military surplus BC-696 transmitters into sideband exciters. He sold dozens of the little rigs, even though they had no name. Batchelor said Schum was worried the little 696s would compete with his 10-A. So Schum invited Batchelor to join him at Central.

Batchelor brought a novel idea to Chicago. How about a "look, ma, no hands" transmitter? A deluxe 100-watt output all mode transmitter which required no final amplifier tuning. Batchelor eventually patented his broadband coils, which were the major innovation in the Central 100-V transmitter and 600-L linear amplifier. The 100-V had a permeability tuned oscillator which was extremely stable and a small oscilloscope for monitoring the transmitted signal's quality. It could transmit CW, phase modulation, double sideband with or without carrier and single sideband with or without carrier. It also would do radio teletype. It used the phasing method of generating a single sideband signal with circuitry which ensured longterm carrier and unwanted sideband suppression rivaling or surpassing that achieved by filter generators. But the big advantage of the phasing system was audio quality. The final tubes were two 6550s — highly linear audio tubes. If you liked hi-fi, you'd love the 100-V.

Batchelor and Schum always wanted to produce a receiver which would match the marvelous100-V. Such a receiver would have to be like its deskmate —

revolutionary.

But first, they had to deal with production problems — the complex 100-V turned out to be a handful– like a talented but temperamental child.

The first Batchelor broadband couplers were inefficient. “The first 100-Vs didn’t ship until late 1958,” said Schum’s good friend, Nick Tusa, K5EF. “During that time, they endured VFO problems, bad HF oscillator crystals and the continual problem getting the Batchelor couplers to a state where they were reproducible with consistent results.”

By 1958, said Schum, “We didn’t have the working capital to produce over a million dollars of backlog in orders for the 100-V. We had run ourselves out of money. The (100-V) buyers didn’t pay cash … Instead of getting money in hand … you got a purchase order — the dealers had my working capital!”

Schum eventually worked out a takeover with Zenith in control. New capital flowed in, the 100-Vs — by then performing beautifully — were almost selling themselves. An updated model, the 200-V, went on the market.

With Zenith came new talent. Now Schum and Batchelor outlined what they wanted in a receiver that would properly complement the 100-V: It must have high sensitivity, selectivity, stability. It must transceive with the 100-V. It must resemble the 100-V.

Bill Van Slyck, W9EMB, was head of special products at Zenith. He assigned two top engineers — including Jim Clark, a former Hallicrafters receiver deisgner — and two technicians to the receiver project. “They worked several years on this thing,” recalls Van Slyck. “We spent a quarter of a million dollars when you think of all the company overhead.”

He told Clark’s team, “Build the best receiver ever built, with an emphasis on single sideband.”

It would be called the “100-R.”

Clark’s engineering notes indicate a prototype was in use by 1960. Follow-up tests were conducted through 1961.

Schum took it home and played with it. “It worked well — I transceived with it one Sunday afternoon with a 200-V.”

It covered the ham bands, 160 through 10 meters. The second intermediate frequency was at 50 khz with six tuned circuits for great selectivity without crystal or mechanical filters. The PTO could be owner-adjusted quite easily. It had three degrees of selectivity for AM, two each for upper and lower sideband and one position for CW. Once gain, it featured a Batchelor creation: the bifilar compressor was an RF-derived AGC system which made the front end virtually immune to strong signal overload. Together with low noise RF, mixer and IF tubes, the receiver had impressive sensitivity, better than .6 microvolt through 40 meters and less .9 microvolt on 10 meters.

Ray Osterwald reviews receivers for Electric Radio magazine. He calls the bifilar compressor “true genius.”

“It probably would be tough to overload, even with a gain antenna on 40 meters at night,” said Osterwald.

Schum recalls planning to have five more prototypes built with production and sales to begin in 1962.

Central’s transmitter sales were brisk, but a new president at Zenith decided amateur radio was not good for the corporation.

“I think they experimented with the (ham radio) market and found it wasn’t deep enough for them,” said Schum.

Late in 1961, orders from Zenith: Close Central Electronics.

Wes Schum remembers the trash bins. Central’s records — everything from design plans to sales receipts — went to the landfill.

Including parts for the next five 100-R prototypes. The lone 100-R prototype vanished.

Years passed. Schum longed to re-establish what he calls “Central Headquarters.” He had a couple of 200-Vs, and some other Central equipment. And a friend donated a 75A-4.

Whatever happened to that lone 100-R?

I run a small used ham radio equipment business. [This story was written in 1997; I no longer have the radio business -- JT] Over the course of my buying and selling of old ham radio equipment, I had heard a yarn about a receiver companion to the 100-V. I too longed to own it. I had owned 100-Vs and 200-Vs at different times, and always loved the transmitters. I would usually run a Collins 75A-4 as a receiver, but it was not a perfect match. Rumor had it that some ham had managed to acquire the 100-R prototype. How many times had I sat in front of my 100-V and wished for a matching receiver. It would be wonderful, but … It was a dream, that's all.

Then one day in September 1997 my phone rang.

I sipped coffee and waited for the answering machine to take the message. "Joel, this is Bill Van Slyck in Chicago. I have a receiver you may be interested in — "

Turns out Van Slyck bought the 100-R along with a matching speaker and 100-V transmitter from Zenith as the electronics giant pulled the plug on Central. All three units had sat in his basement unused.

One hitch. Van Slyck had a little auction going. A collector from New Orleans was on his way to make an offer for the 100-R.

I drove to Chicago, and there it was — the mythical 100-R was real after all!

The New Orleans collector paid Van Slyck a visit, too. I figured they'd top my offer. End of story. But the next day I had a phone call. Bill Van Slyck, accepting my offer.

Another rushed trip to Chicago. Next day, I was in my shack cabling the 100-R to my 100-V transmitter together. Transceive with the 100-V!

And thinking. Van Slyck assured me that "there is only one," but still, I wondered. Was there another stray 100-R out there?

Who would know for sure?

I called Wes Schum.

"You got a one and only," said Schum.

Then he hit me. My rival on the 100-R deal, the "New Orleans collector" Van Slyck mentioned, was Schum's good friend, Nick Tusa. And Schum was with him.

"I am preparing my second ham shack with a 200-V, and I was looking forward to buying that receiver," Schum said. "I wanted to get the 100-R and 200-V on the air at headquarters."

He offered me a deal: Send him the 100-R on loan. He would tune it up, make detailed notes on its design and performance. Thus, after playing it, photographing it and talking about it to anyone who'd listen, I packed it up and shipped it to Wes Schum.

The 100-R is on line at headquarters and Wes has overhauled it. He even sent the PTO to Nick Tusa for

repair. Now he's comparing its performance with his Collins 75A-4, the main competition when the 100-R was conceived.

Does that venerable 75A-4 stand a chance?

Stay tuned — that's another story.

The discovery of wireless telegraphy

In today's increasingly connected world, it's hard to imagine a time when worldwide communication required serious effort. Some visionaries could imagine a future where near-instantaneous communication was possible, but for most of the world it was only a pipe dream.

One of those visionaries was **Guglielmo Marconi**. Marconi was born to a life of privilege: his father was a wealthy Italian land owner and his mother was an heiress to the Jameson Whiskey fortune. As a child, Marconi was interested in physics and math, and had an early start in communications science; at 21 at his father's estate in Italy, he managed to send wireless telegraphy signals over two kilometres.

His work was inspired by Heinrich Hertz, who discovered wireless waves, James Clerk Maxwell, who first described electromagnetic waves, Oliver Lodge, a professor at Oxford University, and Augustus Righi, a physics professor at Bologna University and close family friend.In 1896, Marconi and his mother moved from Italy to London where Marconi set up shop. Within a few months, he submitted his first patent on wireless transmission using Hertzian waves.

Almost instantly, Marconi became a celebrity and had the support of the public, the British and Italian Navies, the British General Post Office, and Queen Victoria. The public was enchanted by the idea of coded messages travelling through the air (what we call radio waves today) rather than through wires like traditional telegrams

http://thevarsity.ca/articles/29188

New format of hard drive storage coming in 2011

Hard drives are about to undergo one of the biggest format shifts in 30 years.

By early 2011 all magnetic hard drives will use an advanced format that changes how they go about saving the data people store on them.

The move to the advanced format will make it easier for hard drive makers to produce bigger drives that use less power and are more reliable. However, it might also mean problems for Windows XP users who swap an old drive for one using the changed format.

According to *Science On-Line*, since the days of the original DOS operating system, the space on a hard drive has been formatted into blocks 512 bytes in size based on the floppy disks of that era. Each 512 byte sector has a marker showing where it begins and an area dedicated to storing error correction codes. In addition a tiny gap has to be left between each sector.

While 512 bytes made sense hard drives were only a few megabytes in size, its of less significance when drives can hold a terabyte or more of data. As a result, in large drives this wasted space where data cannot be stored can take up a significant proportion of the drive.

Drive makers say that moving to an advanced format of 4 kilobyte sectors means about eight times less wasted space. This will allow drives to devote twice as much space per block to error correction technology.

Through the International Disk Drive Equipment and Materials Association all hard drive makers have committed to adopting the 4 Kilobyte advanced
format by the end of January 2011. These same manufacturers have begun an education and awareness campaign to let people know about the introduction of the news advanced format. Also, to warn about the problems it could cause for users of older operating systems such as Windows XP or ME. This is because Windows XP, ME, 2000 and the like were all released well before the new 4 kilobyte format was decided on.

THIS IS WHAT THE CLUB LOOKED LIKE AFTER THE DONATED EQUIPMENT ARRIVED.

Curtis- AA3JE (below) ran the auction segment of the CAARA Flea Market and as usual did a masterful job.

Hank- W4RIG collected the money as Rick- WZ1B and daughter, Erin- W1ERN, chat. The gentlemen below bought all the tubes...well over a thousand and mangaged to fit them in his car. I believe he joined the club as well.

NEWS RELEASE

NATIONAL WEATHER SERVICE TO CONDUCT FREE SEMINAR ON UNUSUAL, SEVERE AND VIOLENT WEATHER

The National Weather Service will conduct a free program on severe, violent and unusual weather conditions. Rob Macedo, KD1CY a 15-year veteran of the NWS SKYWARN program will be the presenter. The program covers topics such as hurricanes, lightning, tornadoes, downbursts and other summer and winter weather events. This highly informative and timely program will also provide information on identifying cloud formations, identifying hail sizes and estimating wind speed.

This program is open to all and will be of particular interest to anyone who enjoys outside activities such as sports, camping, boating or is just interested in learning more about the weather. This program will also cover safety tips that are appropriate during severe weather events.

Each year the National Weather Service SKYWARN program conducts a series of outreach programs that are tailored to their respective forecast areas. CAARA is pleased that the National Weather Service, Taunton office has recognized the club for a SKYWARN Training session in 2010. In addition the program will cover information on this nationally recognized program in which CAARA is active. The program will also cover subjects on how one can participate, what information is requested and how to report that information. The SKYWARN program helps to save lives.

The National Weather Service relies on real time weather information from local SKYWARN weather spotters. Weather observations received from spotters located where the weather event is taking place helps the Weather Service to issue timely reports and severe weather warnings. These reports also help to validate forecasts with real time on the ground observations. At the end of the program participants will have the opportunity to join the National Weather Service SKYWARN Spotters Program.

Each year the program is updated with the latest information on severe, violent and unusual weather conditions which affect our area and will be held on Saturday April 10th, 2010 from 10 AM-1 PM at the Lanesville Community Center,8 Vulcan Street Gloucester, MA 01930.Directions can be found by going to www.lanesvillecommunity.org . If you wish to sign up for this course please e-mail club clerk Dean Burgess KB1PGH at dburg101@aol.com.

The April 2010 edition of WorldRadio Online magazine is hot off the virtual presses and can be downloaded free at:
http://www.cq-amateur-radio.com/
Click on the WorldRadio Online link on the upper left of the page, and you'll be taken to the magazine on the WRO Welcome page.

This edition is loaded with great columns and features including:

* Tower Safety: Knowing the rules that can save your life
* MARS chiefs adopt a new plan for cooperation in Haiti
* Krusty ol' Kurt dissects the Cobra antenna
* Propagation: Is it a "good day" in the ionosphere?
* China brings new "Hope" to the satellite scene
* Rules and Regs asks: "Are you a Semi-Pro Radio Ace?"
* Readers react to the OM Trail-Friendly portable antenna support

In addition, you'll find regular columns including Promotion & Recruitment, FISTS CW Club, 10-10 International, Contest Corner, DX World, Hamfests and Special Events.

In April's Editor's Log, get details on how to follow WRO on our new Facebook, Twitter and WorldRadio Online blog pages. You're also invited to join in a live, online chat with WRO Editor Richard Fisher, KI6SN, on Sunday, April 4 at 8 p.m. Eastern time.

To access April's WRO . . .

DOWNLOADING: The entire April edition can be downloaded by clicking on the photo of the cover (left) on the WRO Welcome page. If you'd like to download the magazine in smaller sections, click on the Table of Contents page (on the right - recommended for users with slower Internet connections) .

How to QRP -- Operating Strategies for the Power-Challenged...

I got a Yaesu FT-817 a few months ago, and started "learning the ropes" of QRP operating. It's been a frustrating, rewarding experience. Lots of people here on eHam, and friends met along the way, have helped me along.

Recently, the Yahoo "FT817" group had a thread on QRP operating, under the heading "Not much success". It was started by someone wondering "Why isn't anybody answering my CQ ? ".

The responses were a good guide to QRP strategies. Here's a compendium of what was on that thread, combined with the advice others have given me. Thanks to everyone!

0. [really important] Use the best antenna you can. Don't confuse "low SWR" with "efficiency". Lots of wire, up high, works well. Most other things work worse. [There's a wealth of expertise here in the "Tower Talk" Forum.]

For me, portable operation has been quite successful. A 31' windsock pole on a beach puts out a much better signal than a hamstick off my apartment balcony. A 7 amp-hour battery is enough for many hours of operating. My recent 5-watt SSB QSO from Vancouver BC to Trinidad/Tobago, shows that a decent antenna really helps!

1. Don't call CQ. Your signal is weak, and many people won't bother to answer it. Instead, listen, listen, listen.

2. Use CW or digital modes -- PSK31 or RTTY. They are much more effective than SSB. [For new CW ops, a membership in FISTS and listening on the FISTS frequencies will probably give lots of contacts, and practice.]

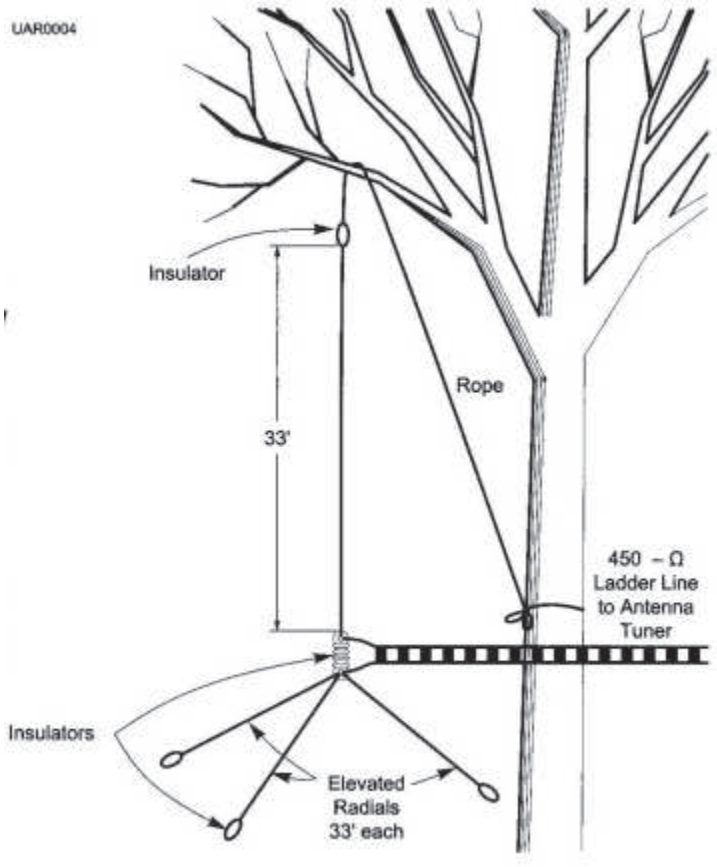
3. "Tail-end" QSO's, after the final sign-off. A call to one of the stations often works.

4. Work strong stations. An S9 incoming signal means that there's a good path to the other operator, or that he's got a good antenna. In either case, he's more likely to hear you than someone with an S5 incoming signal.

5. Work the nets. Try MIDCARS, dawn to dusk, 365 days a year, 7.258. They're not a traffic net. They primarily do mobile check ins. The will listen and normally call for QRP stations now and then. I've used the Maritime Mobile Service Net (MMSN) on 14.300. There's an Alaska Net, numerous local and regional traffic nets, WAS nets, and so on. The WAS net participants expect QSL cards, but you'll have a bunch of people listening _very hard_ for your signal.

6. Work the contests. The big ones, the smaller state "QSO Parties" -- everyone wants to talk to you! “2 points is 2 points.” Many participants have excellent antennas and skills. Check the ARRL website for times and required "exchanges". My first contest experience was overwhelming; the second was more effective; the third was a blast.

Good luck! You _can_ enjoy the party, even if you have laryngitis !



Another antenna idea for portable operation

Boat Anchor Night-Light (or What to do with those Old Vacuum Tubes) or (What to do if you have too much time on your hands)

Introduction

If you do any work on old radios, you've probably accumulated a few extra vacuum tubes of various types. In my case, I like to solid-state the power supplies of old radios so I have a collection of 5U4, 5Y3, 5R4, and 6AX4 vacuum tube rectifiers. But for those of you who don't do this, you can find old tubes very inexpensively at flea markets. So what to do with your old tubes? You can throw them away, but why not build a nightlight out of them? I know, I know – night lights only cost a dollar or two. But for only about $30 in parts and shipping costs, you can recycle your old tubes into a dim but usable night light!

The Design

As stated above, I elected to use rectifier tubes in my night light. Both 6.3V and 5Vfilament rectifier tubes are common and easy to find, but 5-volt filament transformers are not. Therefore, I decided to use a 12.6 VAC center-tapped with one 6.3V secondary used for 6.3V filaments, and the other 6.3V secondary used with a ½-ohm dropping resistor for 5V filaments. Of course, you can put 6.3V directly on a 5V filament and the night light will be brighter. But the filament life of the tube will be reduced. The schematic of my design is shown below. This circuit permits using any of the popular 5V rectifier tubes, as well as some of the popular 6.3V tubes.

Building your night Light

The photos show the way I constructed my night light. You will need both a 1-inch and 1.25-inch chassis punch for ease in cutting the holes for the octal socket and AC plug. If you have an octal socket with mounting ears on it, you can easily mount this in the 1-inch hole. However, since I used the pc-mount octal socket called out in the parts list, I had to piece of printed-circuit board to make a sub-board to hold the pc socket. Then the subboardwas mounted with #6 hardware.

The AC plug called out in the parts list can be easily disassembled, and then the housingcan be used as a retainer to hold the plug in place on the aluminum box.

Parts List (Some substitutions may be made)

QTY Description Source Price

1 12.6VCT 3-amp transformer All Electronics TX-123 $8.25

1 Fuse Holder Mouser 441-R345A $0.93

1 1-amp Fuse Mouser 504-GMA-1 $0.24

1 PC Board All Electronics PCB-46 $2.00

1 0.47 ohm 2-watt resistor All Electronics 0.47 2-watt 3/$1.00

1 3-Prong AC Plug All Electronics ACP-8 $2.50

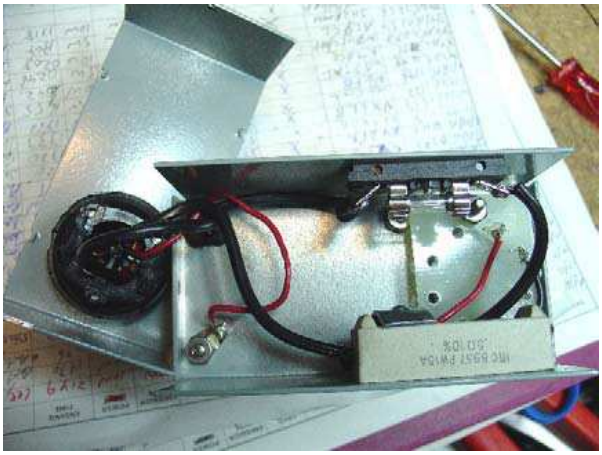
1 Octal Socket All Electronics OCT-PC $1.00

1 Aluminum Box Mouser 537-00-P $5.69

Miscl Hardware, wire, solder, and heat-shrink tubing

Conclusion

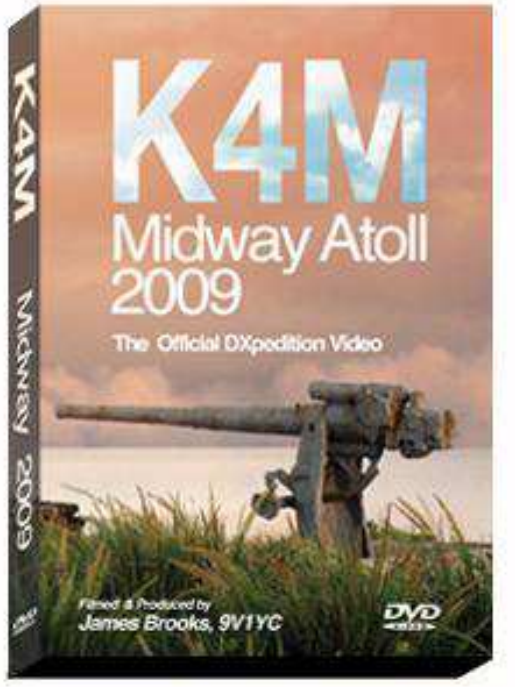
I've described a vacuum tube based night light that can be easily built Obviously, the design can be modified to use any vacuum tube you may have. Yes, it is expensive and not very bright. And yes, it is bulky and dissipates a fair amount of power (up to 19 watts with a 5U4). But it resolves the question: "What do I do with those old vacuum tubes?"



Inside wiring of the night-light

Plug in side of the tube night-light

The K4M Midway DXpedition DVD is out!



Well known as a World War II battleground, a military base and a trans-oceanic fuel stop, today Midway has an entirely new purpose.

Managed by the US Fish and Wildlife Service this ancient volcanic atoll is now a national wildlife refuge and gateway to the remote Northwest Hawaiian Islands.

Go behind the scenes on the 2009 DXpedition and see how Amateur Radio is now a welcome activity inside one of America's most protected wildlife reserves!

http://www.dxvideos.com

Yorkshire space enthusiast records Earth using balloon

BBC news and the Daily Mail newspaper have reported how a Yorkshire space enthusiast **Robert Harrision, 2E0RJH** managed to get high altitude pictures of the earth.

Robert 2E0RJH, a training instructor at the Wakefield & District Radio Society, developed the balloon-mounted camera project for just £500 and it took spectacular images of the earth from a height of 35km.

Read the BBC news report and video at http://news.bbc.co.uk/1/hi/england/west_yorkshire/8587749.stm

Daily Mail Story with picture of Richard Harrison 2E0RJH with what looks like an FT-817 and 70cm yagi
http://www.dailymail.co.uk/sciencetech/article-1260323/British-aerospace-enthusiast-takes-NASA-style-photographs-using-helium-balloon-pocket-camera.html

The pictures taken can be seen at
http://www.robertharrison.org/

CALLING FREQUENCIES
HF To 6M — DX, DXpedition, SSB, CW, AM, FM, RTTY, SSTV

Note: By tradition, 20M and up is Upper Sideband, 40M and below is Lower Sideband. An exception is the new 60M Ham Band — use USB. This protocol came about as a matter of convenience in early SSB transceiver design and has remained to this day. And yes - you can operate either sideband legally where phone is allowed. And yes you can operate CW on the phone bands — but best stay with the protocols.

160 METERS

1.810 QRP CW Calling frequency
1828.5 — DXpeditions CW Operations are frequently here
1.830-1.840 CW, RTTY and other narrowband modes, intercontinental QSOs only
1.840-1.850 CW, SSB, SSTV and other wideband modes, intercontinental QSOs only
1.825 - SSB QRP Calling Freq
1910 - SSB QRP Calling Freq

80/75 METERS

3.500-3.510 CW DX Window
3.505 DXpeditions CW are frequently here
3.560 QRP CW Calling frequency
3.590 RTTY DX
3.790-3.800 SSB DX Window
3.710 QRP Novice/Tech CW Calling Freq
3.845 SSTV
3.885 AM Calling Frequency
3.799 DXpeditions SSB are frequently here
3.985 QRP SSB Calling frequency

40 METERS

7.000 - 7.010 CW DX Window
7037 Pactor Calling frequency
7.040 RTTY DX
7.040 QRP CW Calling Freq
7.050 XTAL Controlled Rigs
7.290 AM
7.065 DXpedition SSB USA split to 7.150 and above
7.005 DXpeditions CW are frequently here
7.110 QRP Novice/Tech CW Calling Frequency
7.171 SSTV
7.285 QRP SSB Calling frequency
7.290 AM Calling frequency

30 METERS

10.106 QRP CW Calling frequency
10.110 — DXpeditions CW are frequently here

20 METERS

14.025 DXpedition CW Freq — Usually Split
14.060 QRP CW Calling frequency
14.080 DXpedition RTTY Freq
14.080 to 14.100 Primary Range for RTTY

14.195 Rare DX & DXpeditions Frequently Operate SSB Here — Generally Listening Up-Split
14.230, 14233, 14236 SSTV
14.285 QRP SSB Calling frequency
14.286 AM Calling Frequency
14.336 MHz County Hunters when ever 20 is open and mobiles are around. For More County Hunters

17 METERS

18.075 DXpeditions CW are frequently here — Usually Split
18.080 CW QRP Calling Freq
18.110 NCDXF Beacons (STAY OFF OF THIS FREQUENCY)
18.130 SSB QRP Calling Freq
18.145 DXpeditions SSB are frequently here — Usually Split

15 METERS

21.025 Rare DX & DXpeditions Frequently Operate CW Here - Generally Listening Up-Split
21.060 QRP CW calling frequency
21.080 to 21.100 RTTY Primary Range
21.080 RTTY DXpeditions are frequently here
21.110 QRP Novice/Tech Calling Freq
21.150 NCDXF/IARU beacons (STAY OFF OF THIS FREQUENCY)

21.295 Rare DX & DXpeditions Frequently Operate SSB Here — Generally Listening Up-Split
21.340, 21430 SSTV
21.385 QRP SSB calling frequency

12 METERS

24.895 Rare DX & DXpeditions Frequently Operate CW Here — Generally Listening Up-Split
24,910 QRP CW Calling FREQ
24.930 NCDXF Beacons (STAY OFF OF THIS FREQUENCY)
24.950 QRP SSB Calling Freq
24.945 Rare DX & DXpeditions Frequently Operate SSB Here — Generally Listening Up-Split

10 METERS

28.025 CW Rare DX & DXpeditions Frequently Operate Here – Split
28.060 QRP CW Calling frequency
28.080 RTTY Rare DX & DXpeditions Frequently Operate Here — Split
28.080 to 28.100 Primary Range for RTTY
28.1010 10/10 Intl CW Calling Frequency
28.110 QRP Novice/Tech Calling FREQ
28.190-28.225 Beacons

28.200 NCDXF/IARU beacons (STAY OFF OF THIS FREQUENCY)
28.380 10/10 SSB Intl Calling Frequency
28.385 QRP SSB Calling frequency
28.425 10/10 SSB Intl Calling Frequency – Another is 28.400
28.495 SSB Rare DX & DXpeditions Frequently Operate Here — Split
28.600 Old General Callin Frequency - Still used by Old Timers
28.675~28.685 SSTV Operating Frequency — IARU Region 1
28.680 SSTV Operations USA/Canada
28.825 10-10 Backskatter Net - Paper Chasers Net
28.885 6M DX Liaison Frequency — Listen here for 6 Meter DX opening announcements and discussions.

28.945 FAX Operating Frequency
29.000-29.200 AM Operations
29.300-29.510 Satellite Downlinks
29.520-29.580 Repeater Inputs
29.600 FM Simplex - Calling Frequency
29.620-29.680 Repeater Outputs

SIX METER FREQUENCIES

50.06-50.09 Beacons
50.0-50.1 CW
50.090 CW Calling Freq
50.06 QRP CW Calling Freq
50.7 RTTY Calling Frequency
50.100 to 50.130 DX Window (USB)
50.110 DX Calling Frequency (USB) Usually Non-USA Stations Call Here.
50.115 DXpeditions Frequently operate CW and SSB here
50.125 USA National SSB Simplex Frequency (USB) Lots Of USA Hams Call Here For Local and Across Country
50.1-50.6 Weak Signal, AM
50.260 is the WSJT Meteor Scatter calling frequency in the USA
50.270 FSK Meteorscatter
50.300 FM Simplex Calling Frequency (West Coast)
50.385 USB PSK31
50.4 National AM Simplex Frequency
50.885 QRP SSB Calling Freq
51.910 FM Internet Linking
52.525 National FM Simplex Calling Frequency

6 Meter Simplex Frequencies —51.500 51.520 51.540 51.560 51.580 51.600 52.490 52.510 52.525* 52.540 52.550 52.570 52.590

CALLING FREQUENCIES
2M CW..... 144.100 MHz
2M QRP CW Calling Freq ——144.060
2M PSK ..... 144.144 to 144.150
2M SSB..... 144.200 MHz
2M QRP SSB Calling Freq —— 144.285
2M FM..... 146.520 MHz (National Simplex Freq)
1.25M PSK .... 222.07 to 222.15
1.25M CW..... 222.100 MHz
1.25M SSB.... 222.100 MHz
1.25M FM..... 223.500 MHz
70cm SSB..... 432.100 MHz
70cm PSK ..... 432.2 and up
70cm FM..... 446.000 MHz
33cm CW/SSB.. 903.100 MHz
33cm FM..... 906.500 MHz
23cm FM..... 1294.500 MHz

More photos from our Flea Market. Joe- K1JEK (below) sets up his table and Jon-K1TP offers moral support.

So have you just received your amateur radio license and are interested in getting involved in using your license and radio for serving the public in times of emergency? Well here are a few websites to help guide you in that direction.

www.arrl.org Once your on the website you can click on the public service tab or the education tab. You will find a great deal of information there and if you want to really go for it you can take the 8 week,25 hour EC-001 Basic Emergency Communications online course. You may also purchase the ARRL Emergency Communications handbook which has a wealth of information.
www.emergency-radio.org This website is an offshoot of the ARRL and describes and promotes the public service they provide.It also has a few links to other websites which can help you.
www.ares.org This website is about all that the Amateur Radio Emergency Services provides for the public during emergencies.
www.training.fema.org If you want to learn more about how the Federal Emergency Management Association handles the organization of helping the public during disasters you can take a couple of free online courses called ICS 100 and ICS 700 which you will learn all about the " Incident Command System" and the "National Incidnet Management System".
www.usraces.org This website describes all about what the Radio Amateur Civil Emergency Services provides for FEMA and other government agencies during disasters.
www.ares.ema.arrl.org This website describes what is happening in emergency communications and the organization in the entire Eastern Mass Area.
www.skywarn.org This website cover describes how radio amateurs help the National Weather Service in communicating real time weather events to protect the public.

The Cape Ann Amateur Radio Association holds its monthly emergency ommunications group meetings on the third wednesday of every month at 7 30 PM at the Caara Clubhouse on 6 Stanwood Street in Gloucester where we plan and discuss how to provide emergency and public service communications for the Cape Ann Area and if you are interested in emcomm work please come down and introduce yourself.

73's Dean Burgess KB1PGH
Caara Clerk

SILENT KEYS...

Mel Cole passed away on November 10, 2009 with his loving family by his side. He was an avid Ham Radio Operator, WZIQ. One of his achievements was the DX Century Club which he achieved by making over 300 contacts. He and Gene Hastings, W1VRK were friendly competitors, One of the highpoints of his amateur career was the "Can Do" demise. Mel was the last one to talk to the "Can Do" skipper as his boat sank.
Mel was also an active sailor spending many weekends at Cuttyhunk with many other sailors. He will be sorely missed.
William C. Woods Sr., passed away on December 7, 2009. He was an avid Ham Radio Operator, W1QQL. He served as an Auxiliary Police Officer in Marblehead. He was a member of the Blue Knights Motorcycle Club,

FRAMINGHAM AMATEUR RADIO ASSOCIATION SPRING FLEA MARKET

The Framingham Amateur Radio Association Spring Flea Market and Exam will be held on Sunday, April 11, 2010 at their new location at the Keefe Technical School, 750 Winter St, Framingham, MA.

The doors open at 9 AM. Admission for buyers $5.00. For information on sellers tables, please contact Bev N1LOO, call her at 508-626-2012 before 9 P.M. For exam information contact Jim, W1EQW at 508-435-6487

Writers and articles needed for the CAARA Newsletter! It gets lonely trying to put this newsletter together every month!
It would be nice to hear from club members who have material to share with the membership including pictures of your shack, antenna systems, hobbies other than ham radio, vacation trips, etc.
It would also be nice if some member could be responsible for a monthly column: product reviews, ham interviews, membership news, club finances, awards, etc.

QST

Red Cross Sign Memorandum of Understanding On Thursday, March 25,
ARRL President Kay Craigie, N3KN, signed a new Memorandum of Understanding (MoU) with the American Red Cross (ARC) at ARC National Headquarters in Washington, DC. The MoU, which

replaces an earlier Statement of Understanding that expired in 2007, provides a “broad framework for cooperation” between the ARRL and the ARC “in preparing for and responding to disaster relief situations at all levels in rendering assistance and service to victims of disaster, as well as other services for which cooperation may be mutually beneficial.” The ARRL Board of Directors approved the signing of the MoU at its January 2010 meeting following the completion of negotiations. The Red Cross requires the completion of a criminal background check to participate in Red Cross activities and provides a process by which a volunteer may have a criminal background check performed at no cost to the volunteer. In the case of ARRL volunteers, the Red Cross has agreed to accept an alternative process: ARRL volunteers may arrange, at their own initiative and expense, to have the criminal background check performed by a state or local law enforcement agency. The Red Cross also has agreed that ARRL volunteers shall not be asked or required to consent to credit checks, mode of living investigations or investigative consumer reports in order to provide a communications function. The ARRL and the Red Cross encourage interested volunteers in their respective organizations to become members and to participate in the activities of the other organization. ARRL volunteers should be aware that if they wish to become Red Cross volunteers, they may be required to consent to additional background checks in accordance with Red Cross policy that may include credit checks, mode of living investigations or investigative consumer reports. Per the MoU, “both ARRL volunteers and ARC workers will work cooperatively at the scene of a disaster and in the disaster recovery, within the scope of their respective roles and duties as recommended.” During a Red Cross Disaster Relief Operation (DRO) and depending on their training and qualifications, ARRL volunteers may perform in one or more of several roles, including Amateur Radio Liaison, Communication Equipment Operator, Communication Equipment Installation/ Repair and Disaster Assessment. ARRL volunteers who are assigned roles by the Red Cross during a DRO will be provided with Red Cross credentials as required by the role, consistent with Red Cross policy. “Because of the importance of emergency communications, we are happy to be able to continue the League’s long-standing relationship with the American Red Cross,” said ARRL President Kay Craigie, N3KN. “The ARC and other served agencies give Amateur Radio operators the worthwhile missions in our communities that allow us to thank America for the privilege of being hams.”

Balloon Experiments with Amateur Radio

Canadian Radio Amateurs have been using Amateur Radio on balloon launches for many years. This YouTube video shows some of the great pictures they got.

The team tracked the balloon that was carrying a Byonics MicroTrak 300 APRS Tracker operating on 144.390 MHz.
Its 200mw output was received at up 600 km away.

The YouTube description says:

In 2009 a groups of Canadians attached a camera to a balloon and sent it into space. While watching their video the song “Strange Overtones” by David Byrne and Brain Eno came on the radio (KEXP, best radio station in the world).

Despite the lyrics having nothing to do with the video it was great underscoring. So I edited their video and put the song behind it. All apologies to them as well as to David Byrne and Brian Eno. Also sorry for the vertigo; it’s worth it if you watch until the end.

If you find this at all interesting you should watch the original video and visit the Balloon Experiments with Amateur Radio (B.E.A.R.) site at http://bear.sbszoo.com/