CAARA Newsletter

AN ARRL AFFILIATED CLUB MAY ISSUE- 2012

President's Corner

by Stan-W4HIX

Wow, what a month. I worked the Boston Marathon as communications support for one of the Elite Vans. With the record heat, there was a lot on the line for the support volunteers and race organizers. I have to tell you that for race conditions, things went very smoothly. If you haven't worked the Marathon—it is a real thrill.

CAARA conducted another Scholarship Breakfast this month and our donation rate is pretty much on track to continue providing four $250 scholarships, which we will do this year. I want to thank everyone who has participated, and would like to encourage everyone to come out and support the program. It is a great breakfast at a very reasonable price.

I have been working with the Gloucester Emergency Management Department helping to program their brand new Motorola handhelds. Very nice VHF radios. They will be programed with all of the local VHF frequencies, including the CAARA's W1GLO repeater, for hams that might be using the radios, or others who want to monitor.

Speaking of Gloucester EMD, the communications trailer has been lettered and delivered to CAARA. Now it is time to get it operational and ready for Field Day.

CAARA conducted its sixth Tech-in-a-Day program. Conducted at the Lanesville Community Center, eighteen students were ushered through the program, with fourteen passing the Element 2 test and earning their Technician license. We had several Boy Scouts and CERT members.

Field Day preparations continue. The trailer will simplify the logistics tremendously—we can spend more time setting up rather than ferrying equipment back and forth. I'm looking forward to it. If you want to help out, come to our meetings.

See you around the clubhouse.

Clerk's Corner

I think for this months edition of the clerks corner I'll try to cover all of what amateur radio is. As a ARRL Eastern Massachusetts Public Information Officer I want to challenge myself to think about all the different aspects of our hobby. I remember when I was doing communications for the Gloucester triathalon a couple of years ago I got to talking to a guy and after I said I was an amateur radio operator, he said,"You guys still do that?". Well that isn't a good impression of what the public thinks we do. I think most of us agree that the general public still thinks of amateur radio as an "Outdated Hobby" where people just talk on the radio. So lets take a moment to think about all that encompasses our hobby and I'll leave out the basic "Talking on the radio" part. The amateur radio hobby embraces many things. Lets start with an endless amount of educational aspects such as math, physics, geography and electrical engineering just to name a few. Ham radio also is a very, "Do it Yourself" hobby with electrical and radio kit building as well as building your own antennas. The amateur radio hobby also is very competitive if you want it to be. The radiosport aspect of ham radio involves team building and even all the contact awards that are available set up a very goal orientated mindset for those who want to pursue it. Not to mention learning new modes of communications and operating portable. Amateur radio operators can be very civic minded as well. Just look at all amateur radio operators do with emergency communications, Skywarn Weather Spotting and public safety communications during all the road races, marathons and parades every year nationwide. Emergency Comunications is also a great way to get involved with disaster preparedness for your community and your family. There is also the great "Social" aspect of amateur radio and talking to others around the world is have of it. Amateur radio is a great way to meet all sorts of people from all walks of life. Especially if you join a ham radio club like CAARA. Not to mention all the club meetings and

year round events that we have. Amateur radio operators also give back to the community such as simple things as CAARA‘s Scholarship fund to donating our personal time training for and performing emergency and public service communications. So it is up to all of us to show all of what amateur rado is and can be to the general public. Amateur radio is more popular than ever with over 700,000 licensed operators in the United States and if one thing is true, one can never be bored in the amateur radio hobby! As the saying goes- ”This isn‘t your grandfathers radio anymore!”

QST ALL CAARA MEMBERS, YOUNG AND OLD, NEWLY LICENSED OR OLD TIMER!

It is indeed an exciting time to be a member of the CAARA club. The Board of Directors has decided to step back and consider a redesign of the club facility to meet our member’s operating needs with **YOUR** input.

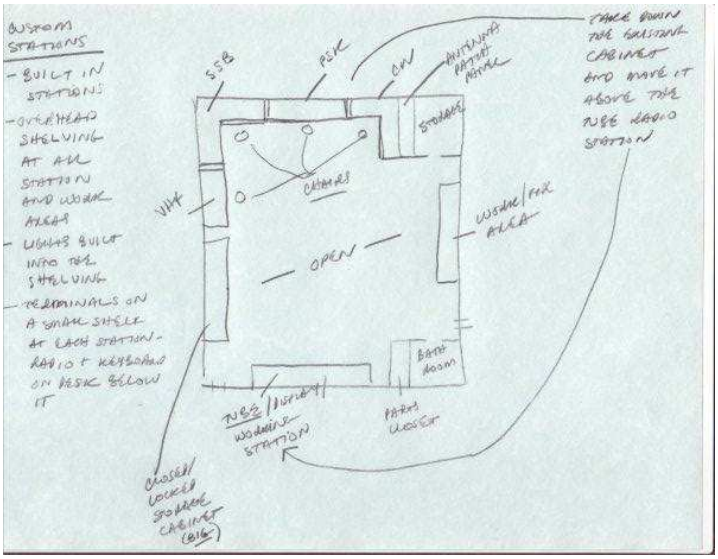
As you may be aware, we have received an enormous amount of donated radio equipment from silent key hams and we have even purchased an Icom 7000 HF multimode transceiver. It was with this influx of equipment and member interest that the BOD decided it was time to relook at the current second floor layout. We felt it left something to be desired and now was a good time to tackle the issue.

We welcome your ideas on how to layout the second floor for ease of station operation as well as what stations and modes of operation you would like to see setup. For instance: Digital, CW, SSB, VHF, Vintage tube gear, testing area, parts area, etc. Consider the second floor empty and your are designing it from scratch. We have the capability of building station consoles and we do not have to use the exisiting folding tables.

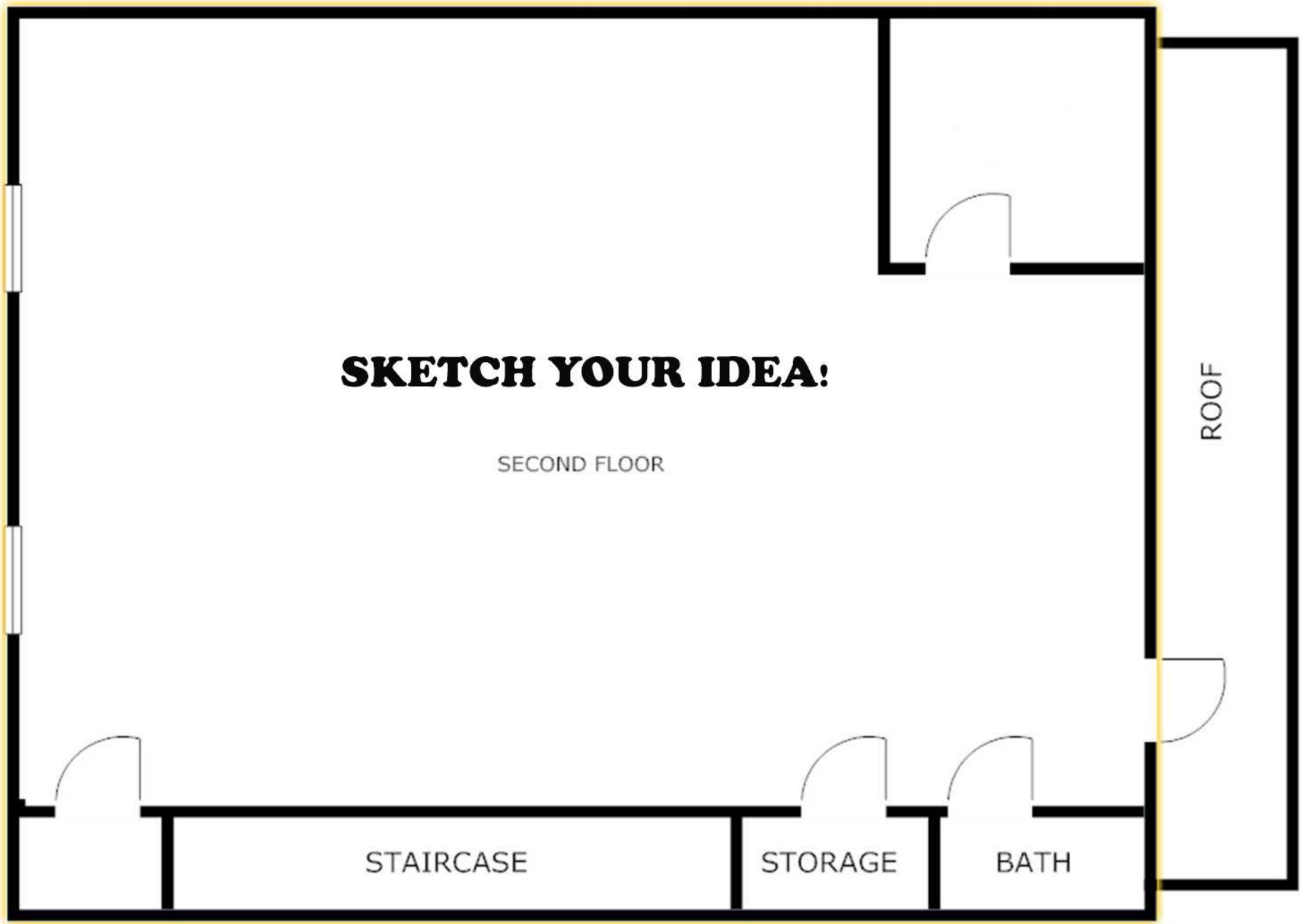
It is our goal to design and build a showcase second floor operating room that is setup in good amateur radio practice- station grounding, ample electrical service, antenna switching, ease of operation, etc. for all club members to use and enjoy.

We would like to meet a few Sunday mornings and hear your input and also welcome your help in the construction phase....everyone has some skill that can be utilized! Once we determine what we are going to setup for radios, we will tackle the antenna situation and redesign and/or refurbish the current antenna systems, again with your help. This is a great time to jump in, get to know other hams in the club, sharing your knowlege, and perhaps learning something new about this great hobby.

Next time you have a chance, go upstairs and look around, make some notes, and sketch out your ideas and submit them to any BOD member. It is our hope to get this started after Field Day and start constuction later in the summer. I have provided a blank floor plan of the second floor for you to sketch out your ideas on the next page..



This is an example of one sketch already submitted for the second floor layout- What is your idea? This plan would place all the operating stations against the walls and leave the center space available and utilize custom built consoles. All antenna switching would be done with a single patch panel which you could learn to use in five minutes and eliminate the excess coax and switching system currently in use. Suitable wiring and grounding would be available at each station, no more extension cords and power strips!


SKETCH YOUR IDEA!
SECOND FLOOR
ROOF
STAIRCASE
STORAGE
BATH

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.

Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Cub Reporter

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 former W1RK 443.700 repeater with antennas located in Magnolia is now located at the CAARA clubhouse and has a very limited range.

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.

best match. Use a repeater frequency that is not used in your vicinity or a not-too-popular simplex frequency.
If your intent is to key the repeater to see how strong its signal is, don't kerchunk it. Instead, transmit and say "K0ABC testing". Remember, unidentified transmissions are illegal and annoying. Also, most repeaters have special circuitry which detects kerchunking and sends out a powerful signal that causes the offending radio to burst into flames.

INTERFERENCE

Most repeaters in Colorado are blessed with very few malicious interference problems. If you do hear this sort of thing (jamming, foul language, etc.), NEVER acknowledge it on the air. Giving the person some kind of response only encourages the behavior. Also keep in mind that interference may not be intentional. Most operators have at one time or another accidentally keyed the mike or have mistakenly left the receiver volume turned down and transmitted on top of someone. Assume good intentions until proven otherwise.

PROPAGATION

Both 2 Meters and 440 MHz normally exhibit line-of-sight propagation. This means that the signal travels to the optical horizon (and perhaps a little farther). Increased Height Above Average Terrain (HAAT) increases the distance to the horizon and propagation distance. This is why repeaters are located on the tops of mountains or tall buildings.
The front range of Colorado enjoys excellent VHF & UHF repeater coverage due to the close proximity of the mountains to the flat plains where much of the population is concentrated. Propagation characteristics of 144 MHz and 440 MHz are similar, with 440 MHz more susceptible to the shadowing effects of hills and other obstructions.
On some occasions, VHF and UHF propagation enhancement occurs and signals propagate significantly further than line-of-sight. These propagation modes include tropospheric ducting, sporadic E-skip and meteor scatter. Most of the long-distance VHF/UHF work is done using single-sideband or CW on the low end of the bands.

SIGNAL REPORTS

FM signal reports are often given in terms of receiver quieting. A strong signal will fully quiet an FM receiver, while a weak one will be quite noisy. A "Full quieting" report is given to a signal which exhibits no background noise or hiss. Signal reports are often given in terms of "percent quieting" to give the transmitting station a better idea of the signal quality. Remember that when using a repeater there are two communication paths at work — the path from the transmitting station to the repeater and the path from the repeater to the receiving station. Either one of these paths can exhibit noise due to a weak signal. If the receiving station has a strong S-meter indication but the transmitting station sounds noisy, the transmitting station is probably weak into the repeater. Remember that the signal strength indicated by your S meter is due to the repeater and not the transmitting station.
A frequency modulated transmitter used on the VHF/UHF amateur bands should be set for a maximum frequency deviation of 5 kHz with full modulation. Unlike SSB transmitters, the signal strength of an FM signal is independent of modulation level. That is, a dead carrier produces just as much power as a fully-modulated signal. Excessive modulation of an FM transmitter does not improve the reception of the signal and often degrades it. On the other hand, inadequate FM deviation causes weak received audio. The level of audio heard on the receive end is relatively independent of received signal strength. This means that changing transmitter power does not affect the loudness of the audio at the receive end.

Q SIGNALS

Q signals are normally not required on phone and especially not on VHF. However, they are part of the amateur radio culture and are used on the air. The following is a short list of common Q signals, as used on VHF.
QSY "I am changing frequency"
QRZ? "Who is calling?"
QSL "I acknowledge receipt.", "I understand your message."
QSO A radio conversation, as in "I had a QSO with Fred yesterday."
QTH "My location is _____"

EMERGENCIES

Radio amateurs have a long history of helping out when emergencies occur. These emergencies tend to fall into two categories: 1) Disaster situations when the ARES or RACES organizations are activated and

2) Short-term emergencies that a single radio op happens upon. Radio amateurs are urged to participate in their local ARES or RACES organizations to be fully prepared for the first type of emergency.
The second category of emergencies will be discussed further here. First, be aware that in areas with good mobile phone coverage, it will be more effective to report an emergency situation via telephone.
Some things that you need to think about in an emergency:
Where are you?
What is the nearest mile marker, intersection or landmark?
Are there any injuries? (The authorities want to know whether to dispatch medical or not.)

GLOSSARY

ARES – Amateur Radio Emergency Service, an organization which provides public service and emergency communications via amateur radio.
AUTOPATCH – a device which interfaces a repeater to the telephone system, permitting radio amateurs to make telephone calls via the repeater.
BREAK – the term used to interrupt a conversation, normally reserved for priority or emergency traffic.
COURTESY BEEP – the audible beep (or other signal) that occurs after the repeater's timeout timer is reset. Repeater users should pause between transmissions to let this reset occur and to let others break in.
CTCSS – Continuous-Tone-Coded Squelch System, subaudible tones used for accessing some repeaters. These tones are in the frequency range of 67 Hertz to 250.3 Hertz.
DIGIPEATER – a digital packet repeater for retransmitting packet radio signals.
DTMF tones – Dual-Tone Multi-Frequency tones which are produced by pressing a telephone or radio keypad (otherwise known as Touchtones, which is an AT&T trademark).
DUPLEX – operation using a pair of frequencies, one for transmit and one for receive, as when using a repeater.
FM – Frequency Modulation. Modulation technique which places information on a transmitted signal by modulating (varying) the frequency.
FULL QUIETING – a received signal having no noise in it.
INPUT FREQUENCY – the frequency that a repeater listens on (and the frequency that a repeater user transmits on).
KERCHUNK – to key a repeater without identifying your station, often followed by the offending transceiver bursting into flames.
MACHINE – slang for repeater or repeater system.
OUTPUT FREQUENCY – the frequency that a repeater transmits on (and the frequency that a repeater user listens on).
PL – Private Line, the Motorola trademarked name for CTCSS.
RACES – Radio Amateur Civil Emergency Service, an emergency communications group operating under a special section of the Amateur Service regulations.
SIMPLEX – radio communications using the same transmit and receive frequency (as in communication between two stations without the use of a repeater).
TRANSMIT OFFSET – the difference between the repeater user's transmit and receive frequencies. This offset is either + or – 600 kHz on most 2-meter repeaters

NEAR-Fest XI

Friday May 4th and Saturday May 5th
0900 Friday through 1500 Saturday
Deerfield Fairgrounds - Deerfield NH, USA

The Advance Entry tickets are now available for sale. You may mail your requests and checks starting immediately but PLEASE DO NOT MAIL ANY REQUESTS AFTER WEDNESDAY APRIL 25th 2012. Any requests postmarked after that date will be ignored/shredded. We cannot guarantee reliable delivery after that date. NO EXCEPTIONS.
To obtain complete information on how to buy tickets and passes by mail and at area hamfests and flea markets please read this announcement:
http://near-fest.com/index.php?topic=368.0

NEW Camping and Overnight information. If you are planning on camping or tenting you are well advised to read this posting. There are some changes
http://near-fest.com/index.php?topic=961.0

Please note that at this time camping/tenting tickets are not available for advance sale. You may purchase same when you arrive.

CAARA April Member meeting wrap-up *by Dean- KB1PGH*

The club held its monthly members meeting on Wednesday, April 4th at the clubhouse. For April's meeting we had a guest speaker. Mr Rob Macedo KD1CY stopped by and gave us a great presentation on several weather related topics. Rob is the Massachusetts North Shore Distric Emergency Coordinator for the ARRL's Amateur Radio Emergency Services. Rob delivered a powerpoint presentation, along with several video clips, on several topics.Rob started with a top to bottom review of the Massachusetts National Weather Service's Skywarn program. Then Rob reviewed the June 1st, 2011 Tornado outbreak in central Mass. There was a slide show of all the damage, along with audio of the amateur radio operators reporting into the Skywarn net with real time logistical data of storm related damage, along with safety information. Rob then went over the ARES response to Tropical Storm IRENE back in August of 2011. Over 200 amateur radio operators volunteered hundreds of hours of time in EOC's and in Skywarn reporting back to MEMA and other state agencies across New England all of real time weather and safety related intelligence whcih included power outages, lines down and flooding situations. Rob then went over the amateur radio response to the "2011 Snowtober" event which affected central New England with heavy snowfall and massive power outages. Rob also covered the Massachusetts Amateur Radio Emergency Services organization. ARES is a collection of trained aateur radio operators who provide emergency communications to local cities and town agencies.ARES members volunteer all of their time and ham radio equipment to keep the public safe during disasters. For more inforamtion on Skywarn and the National Weather Service in Taunton Massachusetts please go to www.wx1box.org or visit them on their Facebook page.

Coming up in June's CAARA Newsletter: A full wrap up including pictures and results of the April Tech in a Day session.

CAARA and ARRL Spreads word of Amateur Radio !!!

The members of the Cape Ann Amateur Radio Association,along with the Amateur Radio Relay Laeague donated a ARRL Ham radio License Manual to the Sawyer Free Library in Gloucester. CAARA Clerk and ARRL Eastern Mass Public Information Officer Dean Burgess KB1PGH stopped by the Sawyer Free Library during the month of April to present the book to the library staff.

The club is going to start making an effort to stock the local libraries with amateur radio related books for the general public. The local public libraries have nothing in current amateur radio reading material and hopefully this effort will get others involved and interested in our hobby.Each month CAARA is going to donate a book to a local library, be it either a public one or a school one. So if you are interested in spreading the word about amateur radio through public libraries, we will need to raise funds for this effort. If you would like to make a monetary donation to this cause please send your contribution to the CAARA Clubhouse, 6 Stanwood Street, Gloucester Mass 01930 and write “Book Fund” on your check so our club treasurer will know. With your help we can continue to sread the word of amateur radio!

73‘s
Dean Burgess KB1PGH

Bee Careful by *Curtis-AA4JE*

I have to be more careful at the Topsfield Fair. I seem to lose whatever good sense I might have just as soon as I hand over the money for a ticket. This has led in the past to the purchase of “Miracle” gel shoe inserts (it’s a miracle that anyone will fall for this gadget), various kinds of pet hair removers, and a vast collection of kitchen gadgets that promise the skin will “fall off” the vegetables at the sight of the gleaming steel blades.

The current problem is bees. Well not really bees, more like the threat of bees.

Now I am one of those people who have always had a “live and let live” attitude toward sharks, bees, rattlesnakes and similar venomous reptiles. When my son got a job at the “Alligator and Venomous Snakes” department at his local zoo, I quietly asked him NOT to bring his work home, and wished him well.

But I am a sucker for flyers. Especially flyers that promise education. I LIKE education. Sort of (it can get me in unusual situations).

So when I saw a flyer asking me if I wanted to learn more about bees, I picked it up, filled it out, and dropped it in the box. Like most educated Americans I knew the bees were in trouble, but I had no idea why and wanted to find out. Little did I know that the trouble was not going to remain with the bees.

Six weeks later I got an email, one of the 2000 or so I get a day at work, and it asked for my contact information. I saw it was from the bee people, so I filled it out and sent it back.

Four weeks later I got an email asking for $60. I get lots of these too, and so I filled it out, proud with the knowledge that I was doing something for the environment and sent it back.

Four weeks later I got an email telling me that I had been accepted for bee school, and that I needed to report to the Topsfield Fairgrounds in mid February. I was now in “Bee School”.

“Hello? Is this the Bee School?”

“Yes it is, sir. How may I help you?”

“What is bee school?”

“It’s a course that teaches you about bees, their importance in the natural world, and prepares you for a start in bee-keeping.”

“Do I have to keep bees?”

“Oh no sir, that is entirely up to you.”

Reassured, I asked that they send me the coursework. They sent it and I read it, all 248 pages of it (small

print, but lots of pictures). I was appalled. The chapters on history, bee biology, the place of bees in the natural world, bee hives, honey harvesting etc. were OK, but the chapters on “Bee Diseases” left me convinced that it was a miracle that any bee ever survived, much less thrived, for the last 100 million years. Bees appeared to be precariously perched on the thin edge of disaster at every minute. American foulbrood, European foulbrood, pesticide toxicity, Chalk brood, chilled brood, Nosema (whatever that was) and worst of all, the dreaded Varroa and tracheal mites. The little guys were clearly up against it. Bees needed help, just not my help.

So on the appointed day I showed up, expecting to find 15 or so other students. Boy was I wrong.

There were cars all over the parking lot, students all over the classroom, and I was herded into the class with the other 60-70 students, and told how lucky I was to have gotten into the class. (Turns out most people have to wait a few years. I should bee so lucky.)

Bee people fit into three main groups, obvious from their dress and conversation.

The first group are card-carrying “Tree Huggers” who are doing their part to protect the Earth. Or at least the bees on the Earth. They have immaculate outfits from stores I can’t afford to shop in, and talk about pesticides, contaminated food, vegetarianism and such things. They also worry about how to keep the bees from bothering the string quartet at their garden parties.

The second group are “Mountain Men Survivalists”. These are easily recognized by the odor of diesel fuel, lack of personal hygiene, the revolver in their pants and beards that reach their personal areas (if they are not modestly covered with fur).

The third group appear normal, but appear to have had some cross-species spiritual transfer. They deal with humans, since they must, but it is obvious they prefer to interact with insects. The sight of a grown, conservatively dressed, 60 year old man doing a spirited imitation of a queen bee measuring the diameter of a brood cell with her rear end prior to laying an egg is not easily forgotten (though I tried, God knows I tried).

There were also a few lost souls, like myself, who expected something a little different than what we got. So I attended the class, learning about many aspects of bee life, and it all went well at first. I learned how you put a hive together, how you wired sheets of bees wax into the frames in the hive, what “bee space” was, and lots and lots of fascinating (and terrifying) information about bee diseases. It went well right up to the point where the nice man asked me when I was ordering my bees.

Now I really had not decided to buy actual bees, much less 10,000 bees, but it was really hard to say no when surrounded by 60-70 crazed bee fanatics. I had learned how the bees threw the drones out of the hive in the fall, and imagined being set upon by 10 or 20 beekeepers and thrown out of the classroom.

So I said yes (another $100 check). Then the dreams started. I still remembered what happened the time I hit the yellow jacket nest with the lawn mower (bad), and the time my mother had an anaphylactic reaction to a bee sting and had to be carted off to the hospital (bad), and the time I had bought a boat with a nest of hornets in the forecastle (really , really bad). I was not sure that I was really that interested. I had dreams about being the center of attention of a couple of dozen angry bees. But I had said yes, paid my $100, and my bees were due in 2 weeks.

This had a very good effect on my studies at bee school. Up till then I had been interested, but now I realized this was stuff I REALLY needed to know.

Things did not get better when we had the practical demonstration. This involved dressing up in my bee suit (silly) along with 60 other students (really silly), then standing in a swarm (it is bee school) around an instructor who was showing us how to put the bees in the hive.

If you have seen this, you know what happened. If you have not seen this, it is hard to describe. This lunatic takes a 3 pound package of bees, pulls the big lid off of the package, removes the queen (in a little wire

cage) then whacks the side of the cage, HARD. For those who do not know, 3 pounds of bees is about 10,500-12,000 bees. That's TEN THOUSAND or so bees.

TEN THOUSAND bees is a heap the size of a football. A very active football. A football that is wiggling and squirming and seething with motion. I had never seen anything like it. It was amazing, (and a little intimidating).

The bees fell into a big heap when the instructor dumped the big ball of bees into the hive. There are now bees all over. Most stay in the hive, but the adventurous ones start flying and crawling over the student body (student's bodies?). I don't know if you have ever had bees crawling over you (on the outside of the suit), but it is a little anxiety producing. Not all the students dealt with this well, and there was a little running around and screaming, (not too bad), but the bees ended up in the hive, the cover went on, and all was well.

Then he did the SECOND hive. The first bees had let the second swarm know what was coming, through some kind of scent thing, and the second group of bees were MUCH more active than the first. There were bees on everything and everyone, and a cloud of insects flipping and flying all over. I wondered how they would all be caught, but our instructor put the hive together, then just stood waiting. One by one they all the flying insects abandoned the student's bodies, meandered back to the hive, and went inside. The student's did too, as it was time for class to start. This was obviously something that anyone could do, assuming that they could deal with being in a cloud of several hundred stinging insects.

So now I was stuck. The bees were coming in a week, and I had to do something.

So I bought a hive, bought frames, wire, beeswax foundation, nails, and paint (another $300 check). I found a spot in the garden to put a hive where the bees would not bother anyone (I think). I learned how to light a smoker (safety tip, DO THIS OUTSIDE or the smoke detectors in the garage will go nuts), and got as ready as I could. I had offers of help, but I was not sure that I didn't have to face this myself. My mother and father felt strongly about young men having to face their fears, so I remember a childhood covered with welts from being sent out to oil the swamps for mosquitoes (but that's another story, see "Strange Fevers of Childhood").

Well, the big day came. I set up the hive, set up the feeders full of sugar water (2 parts sugar, one part water), added the expensive stuff that kept the bees from getting dysentery (10,000 cases of bee dysentery is something to see), set up the ring to hold the heap of bees on the hive, and then stopped.

The instructions had been a little vague. If it was a hot day, I was supposed to spray the bees with sugar water to calm them. I was NOT supposed to do this if it was a cold day, as they would chill and die. I have never been very good about this "Cold v. Hot" thing, (I think a Massachusetts winter is balmy) , and I asked my spouse.

"Dear , is it cold or hot out?"

She huddled under the blanket she was wearing, and asked "ARE YOU NUTS?".

I assumed this was a rhetorical question, since my sanity, though a matter of dispute in the family, was not the issue.

OK, it was cold. No sugar spray.

Now, I was supposed to smoke the bees if they got fractious. I had learned to light the smoker (see "Smoke Detectors", above), and had even bought special "toxin-free" fuel. This turned out to be old burlap bags, which when lit formed dense clouds that might not be toxic to the bees, but really started me coughing. Soon the smoker was under control, emitting puffs of dense white vapor when squeezed, and the bees and I were now thoroughly upset. The bees thought the forest was on fire, and I wondered if I was gong to be busted for not having a burning permit (it is ROCKPORT, after all).

Now I went down the checklist:

Hive- check

Feeder with nasty yellow antibiotic laced sugar water- check

MegaBee Pollen patty- check

Water source- check

Bee suit and gloves-check

(by now it was clear I was stalling. Really stalling, really, really stalling).

So I grabbed the queen cage tab, pulled off the cover, pulled out the queen cage, and dumped the bees into the hive. Well, MOST of the bees. The rest all flew every which way. Seems the bees thought it ws a nice day like I did.

I dumped the bees, put the hive back together, put the top on, and stopped.

I had put the queen and MOST of the bees in the hive, but I was still wearing about a hundred bees on the

suit. How was I going to get back in the house without an escort of honey bees?
Not to worry, I had my bee brush. I gently brushed the bees off. They came back. I brushed them off and stepped away. They followed.
They had covered this in bee school as well. The instructions were to not walk in a straight line, but to duck around an obstacle. I circled the rose bushes, brushing off bees as I went. It seemed to work so I walked a little faster (more of a run, actually). After about 5 minutes of circling the rose bush puffing smoke like a steam engine I was “bee free” and started back toward the house. Then I saw my wife on the porch with a video camera.
Later, after I calmed down, we talked about it.
“The footage of you putting the bees in the hive is boring, but the shots of you running around the rose bushes screaming and trailing smoke is pretty good”, she said.
I sure hope she doesn’t put it on YouTube. I have one more bee class to attend. They want to know how things went. Next time the little guys get sprayed with sugar.

The New England QSO Party is coming in just one month - the weekend of May 5-6 - and we’d sure appreciate it if you would spread the word within your club through your newsletter or at the next meeting and help us to encourage activity from Eastern Massachusetts. Last year we had 222 different stations from all Eastern Massachusetts counties on the air, and we’d like to have more activity this year.

The NEQP is a great way to test your antennas on 80-10 meters and to be the focus of a lot of activity as stations from around the world look for Eastern Massachusetts stations.

Here is a summary of the New England QSO Party rules:

Object: To contact as many New England stations (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) in as many New England counties as possible on 80-40-20-15-10m. (**New England stations work anyone**)

Date: First full weekend of May. (May 5-6 in 2012)

Contest Period: 2000Z Saturday until 0500Z Sunday (4pm EDT Saturday until 1am EDT Sunday) and 1300Z Sunday until 2400Z Sunday (9am EDT Sunday until 8pm EDT Sunday).

Categories: Single-operator high power, low power(150w or less) and QRP(5w or less) categories, plus multi-operator, single transmitter. Same four categories for mobiles. Single-operator stations using assistance during the contest (packet or Internet spotting nets, etc.) will compete in the multi-single category.

Contest Exchange: Send signal report and state/province (DX stations send signal report and “DX”). **New England stations send signal report, county and state**.

QSO Points: Count one point per phone QSO, two points per CW (includes digital modes)QSO.

Multiplier: Stations outside of New England use counties as multipliers for a total of 67 (CT/8 MA/14 ME/16 NH/10 RI/5 VT/14). **New England stations use states(50)(Count DC as MD), Canadian provinces(14) and DXCC countries as multipliers.**

Scoring:

Total score is QSO points times the multiplier. Mobiles count QSO points per county and multipliers from all counties (counted once).

Suggested frequencies: CW - 3540 7035 14040 21040 28040, SSB - 3850 7280 14280 21380 28380. ** Now that the broadcast stations are mostly out of 7125-7200, try 7180 on 40m SSB.**

Reporting: Logs should indicate times in UTC, bands, modes, calls and required contest exchange. All stations include your club’s name in the log header or summary. Entries must be submitted within 30 days and sent to NEQP, P.O.Box J, West Suffield CT 06093 or via e-mail to logs@neqp.org (Cabrillo format preferred).

Awards: Certificates will be awarded to the top scorers (25 QSO minimum) in each New England county, U.S. state, Canadian province and DXCC country.

Blaming towers is for the birds

I was jogging late one evening in a large park near my home. The nature trails are normally tranquil and solitary. This time, however, I found myself having to share the path with a large flock of Canada geese.

The Canada goose is classified as a "protected migratory species," and you can't kill or injure them. The problem is these pests no longer migrate. Instead, millions of them have set up homes near golf courses, lakes and ponds. In addition to killing lawns by eating the grass, they make their foul presence known by leaving large amounts of waste on walkways, grass, lakes and even boats. A single Canada goose can deposit more than two pounds of fecal matter on your lawn, deck or pathways every day. While eating, a goose will relieve itself every six to eight minutes.

As the most common waterfowl species in North America, the Canada goose is a prime suspect for causing increased levels in high fecal coli from concentrations at beaches. The result can be disease-causing bacteria that result in typhoid, dysentery, hepatitis A and cholera.

Deciding the park pathway was mine and that these migratory interlopers had better move out of my way, I reached for my sound horn. But, before I could grab it, I was challenged by two of the larger geese. Startled, I then stumbled over one of the geese, falling onto the pavement and, you guessed it, right into several piles of goose poop.

At this point, the flock figured it had made its point because as I struggled to regain my dignity and clean myself off, it withdrew to a nearby pond.

The humiliating experience reminded me of a statement I had read about the FCC's open comment period on communications towers. The report quoted research claiming large-scale killing of birds by communications towers.

"Current estimates of the numbers of birds killed annually by communication towers range between 4 and 10 million," it said.

I addressed the broader issue of migratory birds versus towers in 2000. The FCC eventually issued new regulations, walking a tight rope between permitting avian murder and destroying America's communications infrastructure.

Now, it seems there is additional data in a report, created for the U.S. Fish and Wildlife Service, which contradicts the previous claims of large-scale, bird-tower kill. From the report, "… the numbers of birds under the towers he [Arthur Clark] searches has dropped precipitously," the new reports states. "There is speculation among several other researchers that tower kills are in general decline a few years after a new tower is erected."

One might ask: Could it be the winged bombers actually learn where towers are located and fly around them?

Avian lovers should be reminded that a bird's biggest worry is not dying from a head bump to a broadcast tower.

No, the Piping Plover, Tufted Titmouse, Canada goose orany other bird for that matter is far more likely to be killed by the common house cat than a tower!

According to research from the University of Wisconsin-Madison, rural, free-ranging, domestic cats in Wisconsin alone may kill between 8 and 217 million birds each year. That means Wisconsin cats kill more than 21 times more birds than all of the communications towers in the U.S. combined.

If bird lovers would focus as much effort on preventing cat-caused bird deaths as they do trying to force more government restrictions on tower construction, tens of millions of their feathery friends might be saved. The problem with that approach is it pits the feather huggers against the fur huggers. And, it's so much easier to blame your contrived calamity on big, evil corporations.

The Gloucester Emergency Mgt/CAARA EmComm trailer is now at the clubhouse ready for interior renovations. We will be designing the station layout and equip the trailer so it will run off either a 12 volt battery, 120 AC, or with our Honda Generator in an emergency. Rigs will for the trailerwill include the newly acquired Icom 7000 hf transceiver and a Icom 2/440 transceiver, scanner, and appropriate antenna systems. We are currently loading field day supplies into the rear section of the trailer including antenna's, coax, tables, kitchen supplies.

CAARA RESPONDS TO GLOUCESTER EOC !!

On Thursday April 19 the Gloucester CERT Team and members of the Cape Ann Amateur Radio Association were dispatched to the Gloucester Emergency Operation Center at around 4:15 PM. The Gloucester EOC was activated for possible interaction with a ongoing search for a missing 3 year old out of Rockport, MA. Members of the CAARA Emergency Communications group, a part of the overall ARRL amateur radio emergency services, arrived at the EOC and established a radio net on the CAARA 2 meter repeater repeater frequency of 145.130 MHZ and called for other hams to arrive at the EOC. Several other members arrived and stood by for further instructions until the Gloucester EOC was shut down at 6:15 PM since land searches could not be continued due to the onset of darkness. Once again CAARA was able to represent amateur radio as a vital back up for emeregcny communications for the city of Gloucesters Emergency Management. Those who manned the Gloucester EOC from CAARA were Stan Stone W4HIX,Dean Burgess- KB1PGH, Ruth Hodsdon- WW1N and Jake Hurd- K1LDL.

From Dean Burgess KB1PGH, ARRL EMA Public Informtion Officer

PHOTO TOUR OF THE CAARA 2 METER REPEATER LOCATED AT THE CELL TOWER SITE

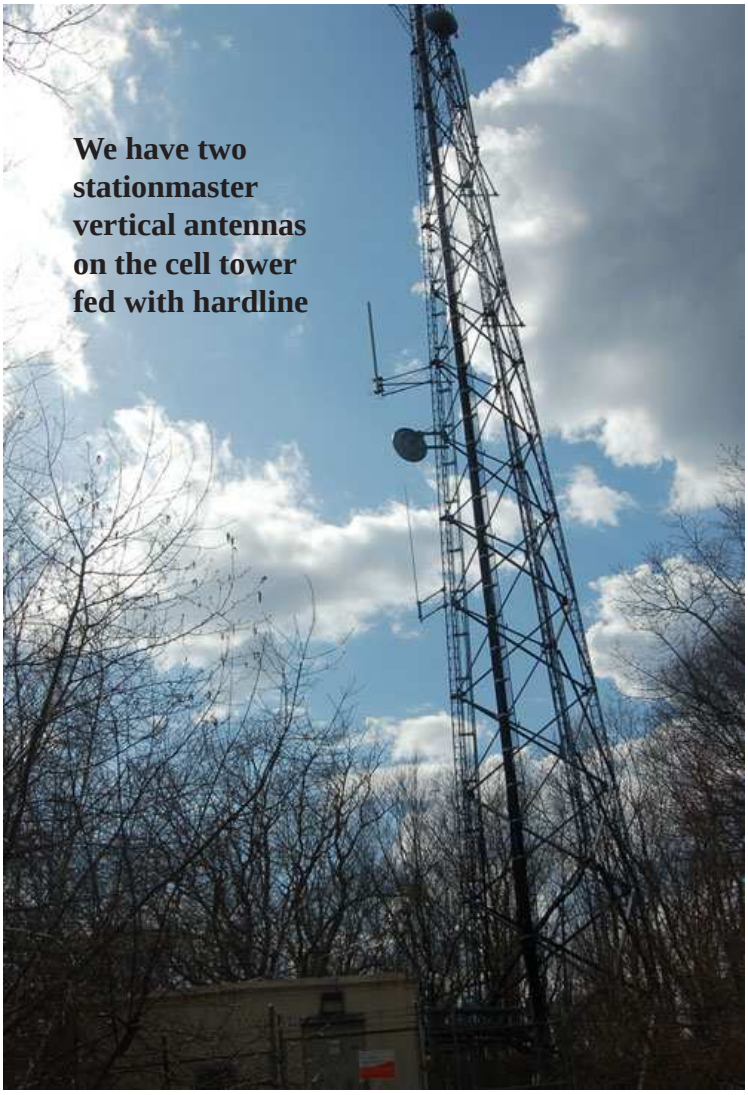
Our CAARA 2 Meter 100 watt repeater

We had some severe noise problems a year ago on our 2 meter repeater and we could not locate the problem but KR1G found that switching the RX and TX antenna temporarily cured the issue. This month we switched the RX and TX antenna back to see if the noise still existed, and to our surprise the noise was gone. This is preferable as the RX antenna is now higher on the tower than the TX antenna and gives us better sensitivity on RX.

While we were checking power and swr, we noted the power amplifier output was low and the unit needed service. Luckily KR1G-Dick had a spare 100 watt amplifier at the club ready for service. It was installed on Friday, April 13th and seems to be operating fine.....*Jon-K1TP and Jake- K1LDL*

Some other gear at the site

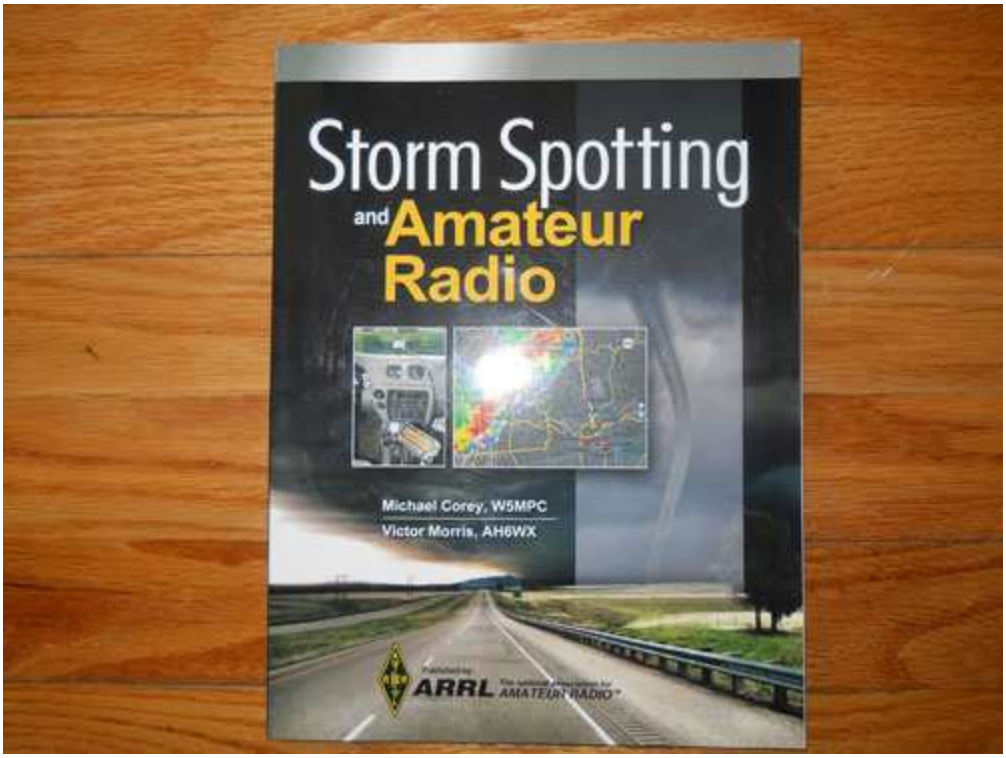
The antenna feedlines entering the building



We have two stationmaster vertical antennas on the cell tower fed with hardline

CAARA Sponsors NWS Skywarn Class !!

The Cape Ann Amateur Radio Association sponsored a National Weather Service Skywarn Severe Weather Spotter Training Seminar on Saturday, April 21st at the Lanesville Community Center, 8 Vulcan Street in Gloucester. There were 25 participants who took this 3 hour course and earned their NWS Skywarn Spottter Card. Here are Rob Macedo- KD1CY on the right and Jim Palmer- KB1KQW who taught the course on the right.



If you happend to miss the Skywarn course or would like to see more on how amateur radio is deeply involved with NWS storm spotting the ARRL has recently released the Strom Spotting and Amateur Radio Guide.This resource includes training,equipment,safety and storm spotter activation projedures,The book is $22.95 and can be found by going to www.arrl.org and clicking on the “Store” link.

PUBLIC SERVICE CALL FOR HALF MARATHON !!

We are looking for Caara members to help for public safety communications for the upcoming Twin Lights Half Marathon on Saturday May 12th 2012. We will need about 10 hams to operate along the race course so heres a perfect opportunity to play ham radio and volunteer at the same time.The race will be between Rockport High School and Good Harbor beach and will start at 8:30 AM. If you are willing to help us out please contact Communications leader Curtis Wright AA3JE at cwiv@me.com or cwright@rockcreekpharmaceuticals.com

A Dark and Stormy Night

By Don Keith N4KC

A deep-throated rumble of distant thunder rattled the two cans of soda pop that rested on the metal patio table. The two people sitting there on the dark, screened-in porch hardly noticed. The rain had let up noticeably and now they could hear the droplets tinkling metallically as they hit the bottom of the nearby downspout. The tree frogs sang happy songs of damp contentment from the far end of the backyard and a cool breeze felt especially refreshing in the wake of the late-afternoon heat prior to the thunderstorm.

"Sorry, Jack," one of them said to the other as he reached for his drink. "I could fire up the generator and we could get to work but I suspect the power will be back on shortly anyway. Probably just a transformer tried to gargle some rainwater."

"Aw, don't worry about it, Mr. Nielsen," the other person said, his voice much younger, obviously still in the process of changing from kid's to man's. "If we don't get it fixed tonight, we still have a few days before my ham license shows up in the database and I'm legal."

"You may as well start calling me 'Tom.' That's what we hams do, you know, regardless our relative ages. First names and call signs. That's the way we know each other." Tom Nielsen took a sip of the fizzy drink. "I think we can get that radio fixed up pretty quickly anyway. They had a problem with the PLL losing synch on some bands as it aged and got knocked around and it's usually just a matter of tweaking."

Jack Marshall took a big swig of his own soda.

"I wish I knew as much about radios and antennas and electronics as you do, Mr. Nielsen…uh…Tom. I've got so much to learn I don't know where to start."

"That's the great thing about this hobby. Amateur radio allows you to follow your own interests and, if you want to, keep right on learning stuff for the rest of your life. Or not." Lightning flickered on the distant horizon, a bit dimmer now. "Heck, I learn something every day, still, after almost thirty years in ham radio and engineering. The hobby's still evolving and you can change with it. Or not. Nothing says you have to. You can go at your own pace, and don't let anybody tell you different."

"Maybe so, but I wouldn't know where to start working on that old Kenwood. I just appreciate you looking at it for me at the swap meet. I've sure enjoyed listening in on the bands that work. Even with the dipole, I heard stations in Germany and Sweden and even the Canary Islands. I had to break out Dad's atlas to find where the Canary Islands were exactly."

"See, learning geography, too! This hobby will make you smarter no matter how hard you resist."

Jack was quiet for a bit, then said, "I appreciate you taking so much time with me. You know there are a few folks around who aren't quite so welcoming to newbies."

Tom cleared his throat.

"I suspect that's true in any hobby or pursuit. Some think it's a fraternity and you have to haze people who want to join it. Others are just protective. They don't want anything to change or evolve, even though change and evolution are inevitable. Some are just plain ornery and anti-social. But the hobby's big enough for all of us, whatever our interests. Shoot, the way I look at it, the more the merrier. You guys bring a new perspective on things, fresh blood. That helps keep us old-timers young."

The door behind them opened with a squeak of its spring and someone stuck her head out from the darkness inside of the house.

“You two guys out here growing moss?”

“Hey, hon,” Tom said. “You want to join us out here? It’s probably getting warm in there with no electricity. There’s a breeze.”

“Don’t mind if I do,” she replied, shining a flashlight their way. “What’s the topic? Football? No. Let me guess. Ham radio!”

Tom took his foot and slid one of the empty patio chairs her way.

“Wrong! Women. I’ve been warning young Jack here about the weird and wily ways of the female of the species.”

“Just because you’ve been married to one for twenty-two years doesn’t make you an expert on the subject, mister,” she responded with a laugh.

“Mrs. Nielsen, I was wondering…” Jack started, but she interrupted him.

“You may as well start calling me ‘Heather.’ That’s how you’ll do it once you get on the air.”

“Okay…Heather. Mr. Nielsen…uh, Tom…and I just went over that. It’s going to take some getting used to, I guess.” He took another draw on his pop. “How did you get started in ham radio? There don’t seem to be as many women in the hobby as men.”

Heather Nielsen stretched out in the chair, enjoying the rain-cooled breeze.

“True, but I think that’s changing. We’re more comfortable with computers and computers are more and more a part of amateur radio. I think that makes more gals comfortable with the technical side. We’re more social than guys in some ways, too, and get a kick out of meeting new people and talking to friends on the air. It’ll take a while but there is definitely a positive trend. Same thing with you young folks. How old are you now, Jack? Fifteen? I think a lot of bright kids are getting tired of Facebook and Twitter and are looking for something that is a little more of a challenge, more diversity and things you can do than just post stuff on a wall. And so they can learn stuff that’ll help them decide on and get ready for a career, too. Yeah, I know. You can call somebody in India or Australia on your smart-phone. But I dare you to dial a number at random and find somebody on the other side of the world with whom you have instant rapport—something in common with—like you do with ham radio. And use a radio station you put together and an antenna you built to do it.”

Jack thought for a moment and said, “You know what? You sound like a commercial for ham radio! I’d guess from your call sign that you’ve been a ham a long time. Right? What got you interested in the first place?”

“I tell people I inherited the hobby,” Heather said with a chuckle. “My dad and mom were both active hams. So was my brother, but he never took much interest in it. I resisted it as long as I could. Back then, the last thing you wanted to be labeled as was a ‘nerd.’ Especially a girl nerd. Kiss of death in high school social circles. Who wants to date a gal who knows Morse code and understands Ohm’s Law?” Heather paused for a moment. The thunder was even more distant and the lightning flashes no more than flickers on the far horizon. “Then there was the hurricane.”

“Hurricane?”

“Yeah. I grew up on the Mississippi coast. We had a category four when I was about your age. Just to please my dad, I had passed my Technician exam but had not been on the air more than a few times. I worked hard not to let word get out at school, you know. ‘Heather the ham.’ One of the football players I had a crush on nicknamed me ‘Betty Beepity- beep.’ Then the storm hit. All the phone lines were down. Cellular wasn’t as widespread then but there was practically no phone coverage of any kind TV and radio were mostly off the air. Even the local police and fire departments lost their communication towers. My family and several other local hams were on the air day and night for better than a week. I spent most of the time at the hospital emergency room, talking with hams set up at the police station and fire department, letting the medical personnel know who was on the way and what their injuries were. I also initiated plenty of health-and-welfare traffic, letting family members know their folks were alive and at the hospital. I was even interviewed by one of the TV network reporters and that was my first

taste of broadcast journalism."

"Wow!"

Heather tucked her feet beneath her and took a deep breath.

"Wow, indeed. I know we saved some lives that week. And avoided a lot of worry on the part of family members. For the first time, I realized this radio junk was more than just a geeky hobby or glorified CB radio. The rest of it slowly grew on me. I'm still not that technical, but I enjoy some contesting and DXing, especially on PSK31 and CW. But my favorite thing is a net I'm a part of every morning on twenty meters. We've got a great bunch of people, most of whom I've never met in person, yet they're like my BFFs."

"'Hen party' is what I call it," Tom interjected. Heather cuffed him on the arm. "Ouch! Watch it. That's my soldering hand. I may need that to get Jack's Kenwood going if the power ever comes back on."

"So you were both licensed before you got married?" Jack asked. "Was that how you two met? I didn't see that as a benefit in any of the ARRL propaganda I read. Finding your soul mate through amateur radio."

Tom and Heather both laughed.

"I was that stereotypical geek," Tom said. "For as long as I can remember, I loved taking things apart and figuring out how they worked. I read an article in a magazine about amateur radio and I was hooked. There was a guy several blocks away that had a tower and beam in his backyard and, even though I was a bashful lad, I walked right up and rang his doorbell. Thank goodness, he didn't shoo me away like the pest I was. His wife made cookies while we went to his shack for a tour. He worked—I don't remember for sure—but I think it was DX. Of course, the next county would have been DX to me. Throwing out a radio signal that could tickle somebody's antenna halfway around the world was nothing short of magic to me. Next thing I knew, I was going to club meetings, studying, building power supplies and a little one-tube transmitter and about the ugliest antennas you've ever seen, and then I had my ticket. There were years I was less active than others, what with girls and cars and high school and then going away to college, but little did I know where this hobby would eventually lead me and how it would disrupt my life."

Heather laughed again.

"That's where I come into the story."

"Yep, that's where this wench rode into my otherwise wonderful life. I was at the university, freshman year, taking that English course that even would-be electronic engineers have to take. I had already noticed the pretty girl who usually sat to my right in that class but since I was still that same shy and retiring type, I didn't have the gumption to say anything to her. Then, one day I noticed she had an earphone in her ear while the teacher was up there droning on and on about some dead poet or another. She's listening to the Eagles or the Doors, I thought. Those were rock groups back in the Dark Ages, see. Anyway, I couldn't decide if that was cool or if she was just a ditzy blonde."

Heather cuffed him again.

"You never told me you thought I was ditzy!"

He ignored her and went on.

"But then I could see that it was a handi-talkie poking out of her purse. This ditzy blonde—sorry, cute gal—was scanning the two-meter repeaters instead of listening to Professor Calabash."

Heather laughed.

"See, I really knew how to impress the guys, didn't I? I never dreamed that old HT would land me a husband! Truth is the local ARES net was a ton more interesting than Dr. Calabash."

"After class, I went up to her and asked her which repeater she was listening to. Don't ever tell me I didn't have a gift of gab!"

"Last of the great romantics! I have to admit, that was the most original pickup line this gal has ever heard. 'What repeater you listening to, little lady?' That's okay, I got a free hamburger at the cafeteria out of the deal. And the rest, as they say, is

history."

Jack listened to the tree frog serenade for a moment.

"So you guys got married and have lived happily ever after on the ham bands?"

"Not hardly," Tom said. "We were both way too busy with school…both of us had to work our way through…to do much with radio. I had a little QRP rig in the dorm room and a piece of wire out the window, but I mostly just listened while I studied. And got on the air some when I went home between semesters until my mom moved all my gear into the closet to make room for a bunk bed for my little brothers."

"I only had that HT at school," Heather said. "And still do, in a drawer around here somewhere, but it doesn't even have a tone board in it and I'd probably play heck trying to find a battery that would fit it anymore. I tutored football players for tuition so that kept me busy, anyway. I did steal Tom's QRP rig a few times and set up under a tree on the quad. Guess I had long since gotten over being labeled a nerd. I remember I worked Japan once with 5 watts and that piece-of-wire antenna. And got some strange looks from the guys playing flag football out there when I started squealing and doing a little jig over working the JA."

Tom chuckled as he gazed into the darkness.

"We had a ham club on campus but in that day and time it was mostly inactive. The club station was in the Student Union but it looked like something out of the early days of wireless. We kept saying we were going to fix it up and get it back on the air but never quite got around to it. Calculus was kicking my hind end."

"But we made it, didn't we, Tommy?" She squeezed his arm. "Our wedding was the day after graduation. Tom had an offer from an engineering outfit here in Atlanta and I landed a job with a little newspaper out in Douglasville, then hooked up with one of the radio stations here in town, doing news. The program director was a ham, and even though he was inactive at the time, I know that connection helped me get my foot in the door."

"You're sounding like a ham radio commercial again, darlin'."

"Sorry. There have been times when neither of us touched a mic button or CW key for months. Sometimes we didn't even have a working station on the air. But the hobby has always meant a great deal to us. And not just because it brought us together in the first place or helped us get our careers going. Seemed like every time the bug bit again, we enjoyed radio even more than before. Always something new to experience. New people to talk to. New technology to take a look at. I love it!"

"Couldn't tell, could you?" Tom asked with a wink, but young Jack couldn't see it in the darkness.

"You guys have kids?"

"A daughter," Heather answered.

"She's up at the university, majoring in spending mom's and dad's money," Tom added.

"She a ham, too?"

"Naw," Tom replied. "We exposed her to it but didn't push. She never developed an interest. Again, like most hobbies, ham radio is not for everybody. Some never get the itch. You can't force it. You nurture it, help those who show an interest. Answer their questions. If the spark is there, suddenly the light will come on one day."

As if on cue, the lights inside the Nielsen house suddenly flickered and then remained on. The air conditioning unit just beyond the end of the covered porch roared to life and the ceiling fan over their heads spun on.

"Thank goodness!" Heather said. "Just in time for 'Desperate Housewives.'" Tom rolled his eyes. "Hey, mister, we all have our guilty pleasures. I see you watching those pawn shop shows."

She stood and stretched.

"I really appreciate you guys telling me your story," Jack said. "And for the sodas and cookies."

"You are welcome," they both replied, in unison.

“Let’s go get that old Kenwood working,” Tom said. “If it is easy as I think it is, we might be able to chase a little DX with it on 20 meters before the band goes to sleep for the night.”

“You boys have fun,” Heather told them as she headed for the door. “I’ve got supper dishes to clean up now that we have light. But if you hear anything exotic, let me know so I can log ‘em, too. The DVR will catch my show.”

“So that’s your game. We find ‘em, you work ‘em.”

Jack Marshall picked up his soda can and followed his new friends into the house, toward the basement room where Tom’s and Heather’s radio shack was located.

Six weeks before, he did not even know these folks, other than having seen Heather doing news reports on the local CBS television station. Now they treated him like an old friend or a favorite nephew. But most of the club members—except for a few curmudgeons who seemed to resent anyone who did not get a license in the 1950s or who dared to enter the hobby before his sixtieth birthday—had shown the same welcoming ways. There were even a few guys and gals his age in the club.

“You really think we can get the rig going on 20 meters?” he asked Tom.

“Maybe. And I’ve been thinking about a simple wire vertical antenna you could hang up in that big pine tree in your backyard. Might be just the ticket for 40 meters…”

Jack grinned. Grinned and wondered why he had waited so long to get started in this amateur radio stuff.

Kit building appears to be on the rise again.

With so many people talking about it on the club’s repeater lately I decided to put together a good list of sources for kits that are currently available. Many of these are for QRP operation, but a few are full-featured professional transceivers (Elecraft, DZ). On the beginners side there are a few sources that stand out: Hendricks has a great assortment of kits, including some SSB QRP equipment. QRPme offers the inexpensive, easy-to-build tuna-can products, and I would like to make special mention of the Four State QRP Group NS-40 which has the coils etched right into the PC board! What a great idea! I’ve covered trasmitters, transceivers, and some receivers here. Some accessories are mentioned in the source descriptions.
Enjoy, and feel free to email me any corrections, or additions.–Neil W2NDG

-Hendricks QRP Kits http://www.qrpkits.com/

- BitX20A/17A SSB Transceiver. The BitX20A and BitX17A are complete SSB kits with board, all parts, digital display and custom powder coated and punched case that is based on the BitX20 that was designed by Ashlan Farhan. Output is about 10 Watts. $180.00 + S&H
- PFR-3a 3-Band Portable Field Radio. Bands : 40 meters, 30 meters and 20 meters. Tuning range: Full band coverage. Mode: CW only. $240.00 + S&H
- NADC30/40 CW Transceiver. Nearly All Discrete Component CW Transceiver for either 30m or 40m. Tuning range ~ 60 kHz. Power output: 3.5 watts. Full Kit: $130.00 + S&H
- Ft Tuthill 15 Meter CW Transceiver. Two 60 KHz tuning ranges, ~ 21.000 – 21.060 and 21.075 – 21.135 MHz. Power Output: 5 Watts. Complete Kit (w/ case and digital dial) $130.00 + S&H
- Red Hot 40 Meter Transceiver. A high performance QRP CW transceiver kit for the 40m band. It has been designed to operate well in the presence of large out-of-band (shortwave broadcast) and in-band (contest station just down the road) unwanted signals. Frequency range is a (nominal) 70KHz segment of the CW end of 40m. Output power 0 to 5 Watts nominal (7 Watts typical). Full Kit: $250.00 + S&H
- MMR-40 CW/SSB Transceiver. The MMR-40 features both CW and SSB operation, the first rig kit in this price class to do so. Transmitter power out: 6 watts CW/pep typical at 13.8V supply. Typical tuning range: SSB: 7.280 to 7.150 MHz CW: 7.100 to 6.700 MHz. Full Kit: $225.00 + S&H
- TwoFer Plus CW Transmitter. The TwoFer Plus is a simple transmitter that will be offered on 40, 30, and 20 meters. The kits come with crystals in the qrp region of the band. It will put out approximately 1 Watt using a 2N3053 transistor for the final. It has a crystal based VXO that will give about 1.5kHz on 40, and 3kHz on 20. It also has a built in T-R switch on

the board that mutes the receiver during transmit. We have upgraded the kit with a custom prepunched case that was designed by Ken LoCasale, WA4MNT. The kit comes complete, with all parts, connectors, case, knobs, wire, and our usual commercial quality double sided, plated through, silkscreened solder masked board. $35.00 + S&H

- DCxxB Board Only Trasceiver Kit. These radios are the next generation of the popular DC40 transceiver that was also designed by Steve Weber. The kit will come with 1 crystal for the band specified. 7.040 for DC40, 10.120 for DC30, 14.060 for DC20. Board-Only kit with decals: $30.00 + S&H
- Scout Regen Receiver. A simple 2 band regenerative radio receiver that is capable of receiving signals from 3.5 to 11 MHz. A complete kit with L shaped aluminum chassis, quality doublesided silkscreened soldermasked board, all parts, hookup wire, board mounted battery holder. This kit is ideal for the first time builder. $50.00 + S&H

-YouKits http://youkits.com/. YouKits seems to be working on several new projects. Watch the website for new additions.

- TJ2A 2 Band SSB / CW Handheld Transceiver. Can be set to operate on 2 bands from 160m – 10m. Output power 3.5 – 4 Watts. Rechargeable. Many band combinations available. $169.00 + S&H
- TJ4A 4 Band Backpack HF Trasceiver. Available in 2 TX models: 80,40,20,15, or 40,20,15,10. New general coverage receiver capability. 20 Watts output (adjustable), SSB, CW, AM. Full Kit: $399.00 + S&H

-MFJ http://www.mfjenterprises.com/

- MFJ-8100K World Band SWL Receiver Kit. Regenerative general coverage receiver covering 3.51 – 4.31 MHz, 5.95 – 7.40 MHz, 9.56 – 12.05 MHz, 13.21 – 16.4 MHz, and 17.6-22 MHz. $79.95 + S&H
- MFJ-93xxK QRP Cub Transceiver Kits. QRP Transceiver available in 80, 40, 30, 20, 17, or 15. Output 2 Watts (except 1 Watt on 17 and 15).

-Vectronics (MFJ) http://www.vectronics.com/Categories.php?sec=209.

- Too many kits to list here. They sell several different Transmitter, Receiver, and Transceiver kits, as well as shortwave converters for the car. A couple of the items seem to be kit versions of MFJ products.

-Ramsey Electronics. http://www.ramseyelectronics.com/

- Similar assortment to Vectronics above, with several transmitter, transceiver and receiver projects.

-Genesis Radio (Australia). http://www.genesisradio.com.au/order.html not all kits are available. Many are listed as sold out, but I assume will become available again. Prices are in Australian dollars. This is the only one currently available:

- G11 5 band SDR Transceiver Kit. Power output 10 W. SMT components factory pre-assembled, buyer to assemble only large through hole components. Price in AUS$: $299.00 + S&H

-Tony Parks, KB9YIG. http://www.kb9yig.com/ Although everytime I look at this page, the kits are listed as “Check back soon” I have been told that if you email Tony he has kits available. These are the kits that the GSB ARC was building. 2 are currently available:

- SoftRock RX Ensemble II Receiver Kit. The SoftRock RX Ensemble II Receiver Kit includes the components for building the kit for LF, 180kHz through 3.0 MHz, operation or for HF, 1.8 MHz through 30 MHz. $56.00
- SoftRock RXTX Ensemble Transceiver Kit. The SoftRock RXTX Ensemble Transceiver Kit provides a 1 watt SDR transceiver that can be built for one of the following four band groups: 160m, 80m/40m, 30m/20m/17m or 15m/12m/10m. $74.00

-Ten-Tec. http://www.tentec.com/categories/Products-by-Area-of-Interest/Kit-Building/ Ten-Tec has 8 Radio kits available.

- QRP Transceiver Kits (20,30,40, or 80 meters). 3 watts power output. covers a 50 kHz segment determined by you at the time of construction. With pre-labeled and painted case. $124.00 + S&H
- 9 Band Regenerative Receiver. 1.760 – 1.990 MHz, 3.3 – 4.150 MHz, 5.5 – 6.9 MHz, 6.9 – 8.5

MHz, 8.5 – 11 MHz, 10.1 – 13.2 MHz, 12.5 – 16 MHz, 14.7 – 18.5 MHz, 18.5 – 21.5 MHz Integrated audio amp IC for clean robust audio from internal speaker or headphones. includes parts, circuit board, assembly manual, battery holder, speaker, complete enclosure, and knobs. $93.00 + S&H

- 4 Band Regenerative Receiver. 5.9 – 6.4 Mhz, 6.9 – 7.4 Mhz, 8.5 – 10.2 Mhz, 11.5 – 16.5 Mhz. Comes with finished front panel. No knobs or case. $41.95 + S&H
- Digital Readout Superhet Receiver. 100 Khz to 20 Mhz coverage. This is the radio that Jay, KC2YSK built and wrote about in the Log previously. Several option available to improve performance from 3rd parties. $205.00 + S&H
- Any Band Direct Conversion Receiver Kit. Includes all of the parts and instructions to let you build the receiver (or change it to) ANY band of your choice (160, 80, 75, 40, 30, 20, 17, 15, 12 or 10 meters). $39.00 + S&H

-Elecraft. http://www.elecraft.com/

- K3 Modular Kit. The K3 is Elecraft's top of the line. Available in 10 and 100 watt versions and with a multitude of options. The modular kit comes with mostly pre-assembled boards that need to be plugged in. The K3 kit starts at $1549.95 and increases depending on what options you choose.
- KX3 Modular Kit. The KX3 is Elecraft's newest transceiver. Similar to the K3 in features, but in a compact portable package. This is a modular kit like the K3 that requires you to assemble the pre-soldered boards. Many options available. Starts at $899.95
- K2 Kit. The K2 is available only as a full kit. This is not a modular kit like the two above, but a full kit for the advanced kit builder. The K2 is a full-featured transceiver available in 10 and 100 watt versions, and with many options. Basic kit starts at $739.95
- K1 Kit. The K1 is a small portable CW transceiver available as either a 2 or 4 band rig. You choose which bands you want at the end of the kit build. Adjustable output from 0 to 5 watts. The 2 band model starts at $299.95
- KX1 Kit. The KX1 is an ultra-portable CW transceiver. Available with 2 bands in the basic model, and upgradeable to 4. ! to 4 watt output. Starting at $299.95

-Hamtronics. http://www.hamtronics.com/menu_products.htm

- Hamtronics offers a variety of VHF and UHF receiver and exciter kits as well as many other interesting items.

-Emtech. http://emtech.steadynet.com/index.shtml

- Emtech is currently out of stock on their NW-series radios. Check back. In the meantime, they have the excellent ZM-2 QRP tuner kit.\

-JUMA. http://www.jumaradio.com/juma/ All prices are in EUROS

- Series one kits. Three kits available. All DDS controlled, covering 80, and 40 meters. RX1 Receiver, 74.80, TX1 Transmitter, 80.33, and TRX1 Transceiver, 169.00.\

- Series two kits. Two kits available. Both are high dynamic range, 10W output, SSB and CW transceiver kits, using quadrature sampling techniques for demodulation and modulation with low noise phasing. VFO is DDS controlled for a good frequency stability. TRX2 2-band model (80 and 40) 395.00, and TRX2A 80 thru 10 model with general coverage receiver, 499.00

-North Country Radio. http://www.northcountryradio.com/index.htm NCR is a source for many amateur related kits. Too much to list here, but they have several ATV related items.

-Radio Adventures Company. http://www.radioadv.com/

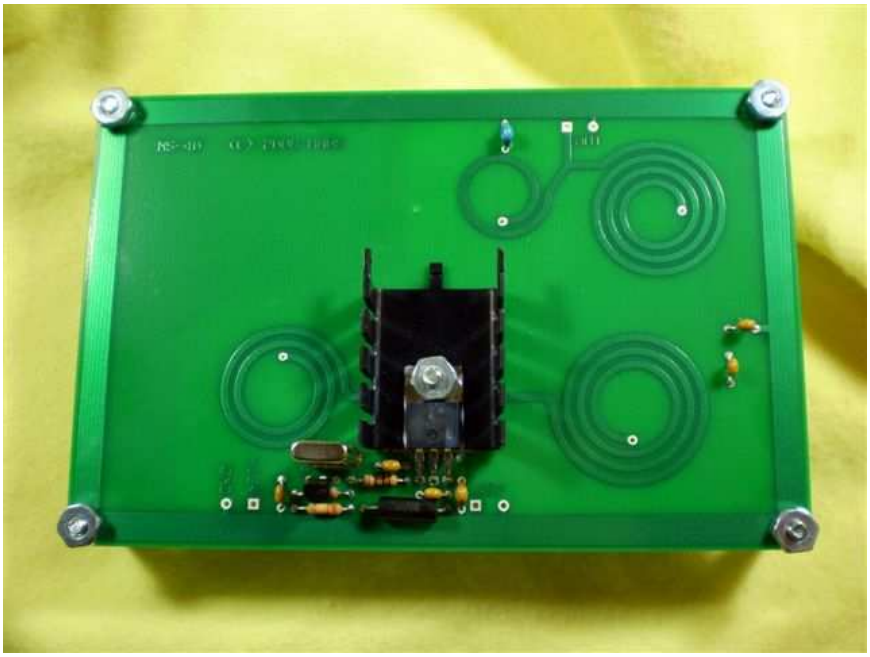
- R1 Code Practice Receiver. High quality fixed frequency CW receivers designed for simple operation. Standard models are available for W1AW frequencies in the 80, 40 and 20 meter bands. $29.95 + S&H

-Small Wonder Labs. http://www.smallwonderlabs.com/

- Rock Mite CW Transceiver. The Rock-Mite is a crystal-controlled direct-conversion transceiver available for 80M, 40M, 30M or 20M. $29 + S&H some accessories available.
- The Retro 75. This is a nostalgic kit. A crystal controlled AM Transceiver with 2 watts carrier, 8 watts peak. $69 + S&H

-Wilderness Radio. http://www.fix.net/~jparker/wild.html

- Simple Superhet Receiver (SST). The SST is an optimized, superhet rig with an extremely low parts count . This may be the easiest to build superhet ever, and it comes with a miniature custom enclosure. 2 Watts output. $90 + S&H
- Nor Cal 40a. The revision B NorCal 40A is a third-generation 40-meter QRP transceiver kit, designed by Wayne Burdick, N6KR. The rig covers any 40KHz portion of the CW band, with a very stable VFO operating in the 2MHz range. The receiver is a superhet with crystal filter, AGC, and RIT. 3 Watts output. $145 + S&H



- Sierra. The Sierra is the only compact, low-current, multiband transceiver kit available. Designed by N6KR and extensively field-tested by the NorCal QRP Club, the Sierra has been completely upgraded for Wilderness Radio–including a painted and silk-screened enclosure and improved performance on both transmit and receive. Uses plug-in band modules for 80, 40, 30, 20, 17 and 15 meters. 1.5 to 3 watts depending on band. LCD display. Starts at $245 + S&H with 1 band module.

-Four State QRP Group. http://www.wa0itp.com/4sqrpkitindex.html

- Ham Can Transceiver. A crystal-controlled CW transceiver, delivering 1/2 to 1 watts. Easy thru-hole kit. Crystal for 7122 included. $30 includes shipping.
- NS-40 Transmitter. Ideal first kit. There are only 14 electronic components, and NO TOROIDS or COILS of any kind to wind – NONE! All inductors are incorporated directly on the PC board as etched spirals. 5 watts at 13.6 volts. $30 includes shipping.

-Kanga US. http://www.kangaus.com/products_by_type.htm

- Several inexpensive kits for the radio hobbyist.

-Electronics USA. http://electronicsusa.com/productsham.html

- A nice collection of kits including keys, keyers, and clocks.

-Heathkit. http://www.heathkit.com/index.php?option=com_content&view=article&id=123&Itemid=237 The legendary Heathkit has been promising NEW ham radio kits for awhile now. Watch the link posted here for them.

-Dan's Small Parts and Kits. http://www.danssmallpartsandkits.net/ Mostly parts here of interest to the radio hobbyist but there are some kits about T! of the way down the page. This seems like the place to get parts for some of these QRP kits above, like crystal-socket pins, and variable capacitors. Great assortment of stuff! In additon to the transmitters below there is an amp kit, an RIT, ans S Meter kit, and much more.

- Little Joe Transmitter Kit. A small kit with board and parts from the book QRP Classics. Available for 80, 40, 20, and 10/15. Does not include crystals. $19.95 + S&H
- Cubic Incher Transmitter Kit. A small kit available for 40 or 80 meters. Crystals not included. Currently on closeout for $6.50 + S&H

-DZ Kit. http://www.dzkit.com/

- Sienna Transceiver Kit. This is a high end, full-featured transceiver with many options. The Sienna can be a full-control stand-alone rig, or a computer-controlled-only rig. Available in 10 and 100 watt version. Kits start at $2098 + S&H for the computer-

only 10 watt model.

- HT-7 7Meter AM Walkie Talkie. The HT-7 is a simple AM handie-talkie that operates on the 40M AM calling frequency. $149.99 + S&H

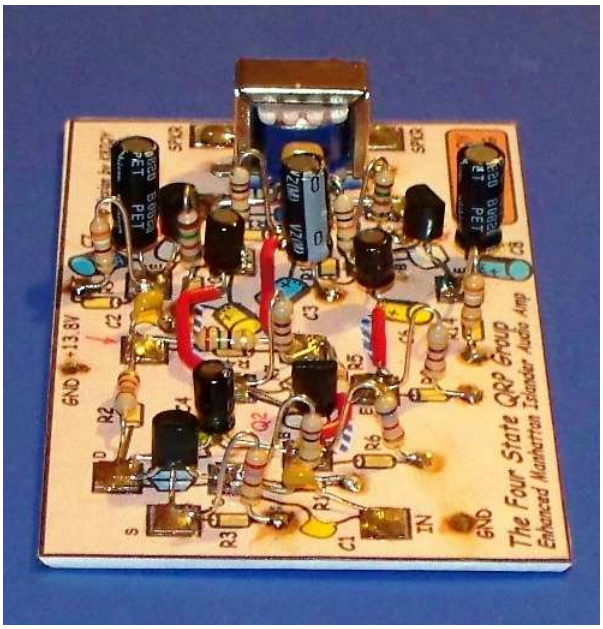
-Fox Delta. http://products.foxdelta.com/ A great collection of ham radio kits. Includes computer interfaces, APRS kits, and more.

-Oak Hills Research. http://www.ohr.com/

- OHR 100A single band CW transceiver kit. Offered in 80, 40, 30, 20, and 15 Meter versions. Each can be aligned to cover 70-80Khz. 5 Watt output. $149.95 + S&H

-QRPme. http://www.qrpme.com/ Several kits and accessories here. They also have an intriguing kit of the month club" delivering kits to you every month.

- Micro 80D. Small tunable 80 meter CW transceiver kit. $35 + S&H
- Lil Squall Transceiver. A version of the Pixie Transceiver. A tinkerers delight. It fits in a small tuna can. Includes a socket for the FINAL transistor for easy experimenting with output power. Likewise, the feedback caps in the oscillator circuit also have sockets making it easy to experiment with new bands. The crystal also has a socket for easily moving the operating frequency about a band. Comes will ALL the parts necessary to complete the transceiver and a 7122 crystal for operating the Lil' Squall][in an area where other minimalist rigs hang out, AND the 'officially unofficial' TUNA NET frequency for tuna can gatherings. $35 + S&H



- Super Tuna II+. A version of the Sudden Transmitter from the GQRP Club. Transmitter section is comprised of an oscillator, buffer and final driver transistor. Produces 2 watts at 12.6 volts. Frequency dependent components are mounted on an easily changed band module. The basic kit comes with a band module for 40 meter operation. $40 + S&H
- Tuna Tin 2 30th Anniversary Isuue. A re-issue of the original TT2 transmitter. Parts are laid out on the board in the exact same way the schematic is drawn. Simple, and easy to build. Comes with crystal for 7.030. $25 + S&H
- EZ Build Two-Tinned-Tuna Transmitter. EZ build version with no toroids to wind. Several socketed parts for experimenting and comes with 2 crystals for 40 meters. $30 + S&H
- Sudden Storm Receiver Kit. Great companion to any of the tuna can transmitters. Comes with components for 40 meters but can be operated on 80, 30, and 20 using the upgrade kit. $35 + S&H
- Reggie II Transceiver Kit. A lesson in minimalist design. The Reggie uses the Limerick construction technique. Output is about 100mW. $40 + S&H

-Xtal Set Society / Midnight Science. http://www.midnightscience.com/kits.html these folks have an nice assortment of crystal and basic am and sw kits, but also have a few kits for hams, like a dummy load and attentuators.

-Radio-Kits.com.uk. http://www.radio-kits.co.uk/ These folks sell a couple of radio kits (listed below), and a few neat accessories including a CW kit that will work with many SSB-only radios. All prices in British Pounds.

- MKARS80 SSB Transceiver. This kit is based on the same design that is used in the BITX20 from Hendricks, but modified for 80 meter use. Main changes from Ashhar's original design are the inclusion of a frequency counter and a Huff and Puff frequency stabilizer. Covers from 3.5 to 3.8 Mhz with about 5 Watts output. This kit is a bargain! Ranging from a basic no-case kit for £55.00 shipped to the USA, to full kit with connectors, knobs, and an undrilled case for £68.50
- Hunter SDR Receiver / Panadapter. This looks like an interesting and economical SDR kit, that can also be controlled by an existing rig for use as a panadapter. £87.00 shipped to the USA

-Radi0shop (eBay store). http://stores.ebay.com/radi0shop This eBay store is selling a couple versions of the Pixie II transceiver. They currently have the 80 meter version in stock, and claim to also supply the 40 meter one. Looks like a very simple build. $39.00 free shipping.

UPCOMING MEMBERS MEETING DATES AND AGENDAS !!

The next club members meeting will be Wednesday May 2nd at 7:30 PM at the clubhouse on 6 Stanwood Street in Gloucester Mass. For May‘s meeting we will be showing a video of “W3AO-The last Big Field day”. This video goes back to 2004 where W3AO had 50 stations on field day as they were designated 50 Alpha. The June members meeting will be held on Wednesday June 6 at 7:30 PM at the clubhouse. For June‘s meeting CAARA member John Graves WA1JG will be doing a presentation on the theory and application of Vertical HF antennas.

May CAARA event calendar notes:

Wednesday May 2nd- Monthly Members meeting @ 7:30 PM
Wednesday May 9th- Monthly Emcomm meeting @ 7:00 PM
Wednesday May 9th- Monthly Board Meeting @ 7:30 PM
Sunday May 13th- Monthly VE Test Session @ 10:00 AM
Sunday May 20th- CAARA Scholarship Breakfast @ 8:30 AM
Sunday May 20th- ARRL Field Day Meeting @ 10:00 AM
Every Sunday @ 9:00 PM CAARANET on 145.130 MHZ No PL

CAARANET BULLETIN !!!
2 Meter Simplex Net !!
There will be a 2 meter simplex net on Sunday, May 13th at 7 PM. This net will be run by Brian- WO1VES. Please check into the NSRA repeater on 145.470 MHZ with a PL tone of 136.5 at 7 PM. The net will then move to simplex frequency of 147.420 MHZ.
Submitted by Dean- KB1PGH

History This Week

*A look back at events that made history **this week** -*
compiled by the Summerland Amateur Radio Club of Lismore, NSW

Monday, 30 April, 2012
1780 William Herschel discovers first binary star, Xi Ursae Majoris
1830 First regular steam train passenger service starts
1851 Dr John Gorrie patents a “refrigeration machine”
1878 Phonograph shown for first time at Grand Opera House

1888 George Eastman patents “Kodak box camera”

1896 First horseless carriage show in London (featured 10 models)

1899 Lawn mower patented

1979 Radio Shack releases TRSDOS 2.3 computer.

2000 Conjunction of Sun, Mercury, Venus, Mars, Jupiter, Saturn & Moon

CW CLASS MARCH-APRIL UPDATE

(by Rick Maybury, WZ1B)

The CW class continues to be fun with lots of progress of the ever-improving CW operators. We have been having fun with a number of ways of learning and playing; copying and sending dirty limericks, copying ever increasing speeds of simulated QSOs, engaging in in-class QSOs with folks in the class, and of course getting on the air in real-time.

More awards will be presented at the next class.

Members of the class have had made terrific contacts around the globe, a few countries that I haven't been able to get in over 25 years of operating…pisses me off ☺.

CELEBRATIONS

Dave Suuronen,KB1KR

Earned his Novice Operator (5 WPM)
Earned his CW Operator (13 WPM)

Larry Beaulieu, KB1VMR

Earned his Novice Operator (5 WPM)

Test taking…

DEVELOPING OPERATIONS SKILLS
IN-CLASS QSOs

We have been having fun developing both our transmitting and copying skills. Beginning in the next class we will be using the new MFJ-462B Multi-Mode Code Reader that was given to CAARA through a grant from the ARRL. This will give each operator a measurement of the speed and accuracy of his or her CW transmissions.

Allan Edwards, KB1TRB in a QSO with Joe Gifun, KB1VZQ

Dave Suuronen, KB1KR in a QSO with Bob Edwards, AB1LT