CAARA NEWS

Cape Ann Amateur Radio Association
November 2017 Edition

PRESIDENT'S COLUMN

by Jon- K1TP

I enjoyed the first Board Meeting with the newly elected board members. We now meet on the first Saturday of each month at the club on Saturday morning at 10AM. All CAARA members are welcome to join us.

One of the first decisions the new board voted on was setting the annual Christmas Party's date and location. I am proud to say we will hold our potluck celebration at the 6 Stanwood Street building on Saturday, 1PM on December 9th. The club will provide the main dish and drinks and members will be asked to bring side dishes or dessert. We will have some great door prizes and a 50-50 raffle. I am excited that the time has been changed to an afternoon on a Saturday and I believe it will make it easier for more members to participate.

A special events station for the Coast Guard will be operating out of the clubhouse on November 11. All club members are welcome to come and enjoy the event. The activity is being conducted by club member Gardi Winchester - KB1BTK and should be a fun event, and a good use of the club building.

As I write this column, the new wood siding is being applied to the building and I will post a few pictures in this newsletter. I suspect it will be done before I send out this newsletter. It is going to look great thanks to the generous grant given to us by the City of Gloucester.

We have a few more road races to work on between now and Christmas, I hope you can lend a hand with this worthwhile public service.

The November Member meeting will be held at noon on Saturday, November 11th and we will be serving hot dogs and beans as part of the meeting. We are trying to get more members to utilize the building by changing activities to daytime rather than nights. I hope it helps out.

The summer has flown by and hopefully you will have the time now to stop by the club and catch up with ham friends.

I N F O R M A T I O N DESK

By Dean- KB1PGH

If there's one thing I never want to hear out of an amateur radio operator is that they are bored with the hobby!Other than a complete lack of personal interest it is virtually impossible to learn everything or to do everything. That`s one of the great aspects of ham radio.So lets take a look at some of the things you can do just on the activity side. You can obviously operate from your house or you can operate portable.You can operate in contests and special event stations.You can try to contact as many countries as you can and there are plenty of awards you can shoot for. You can learn how to operate dozens of modes out there including cw, phone, and a bunch of digital modes. Just learning how to properly set up your station takes time and skill. You can participate in many public service activities such as providing communications for races and parades. Plus don`t forget about all the emergency communication skills and activities you can do such as CERT and SKYWARN .You can do competition foxhunting for signals and communicate with satellites and the ISS.You can go on dxpeditions to far away places and operate on mountain tops. You can go to hamfests and conventions. You can learn teamwork or work by yourself. Even learning how to set up a HF station properly can take years. I`ve had my ham license for ten years now and I still don't know a thing. Now I`m learning now about common choke cores which you`ll see in the next coming months in the newsletter. There`s even more,you can experiment with antennas,

Cont. P3

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).

Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Reporter

Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 Mhz with pl of 107.2 with antennas located on the ATT cell 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 NewHampshire, and maritime mobile stations.

CAARA also operates the W1GLO repeater on 224.900 located at the CAARA clubhouse.

The former W1RK 443.700 repeater is Now located on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced coverage and performance.

CAARA is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes several permanent HF station's with beam, vertical/wire antennas along with an operating 2 meter packet station as well as 2/440 meter voice and 220 MHz Transceivers.

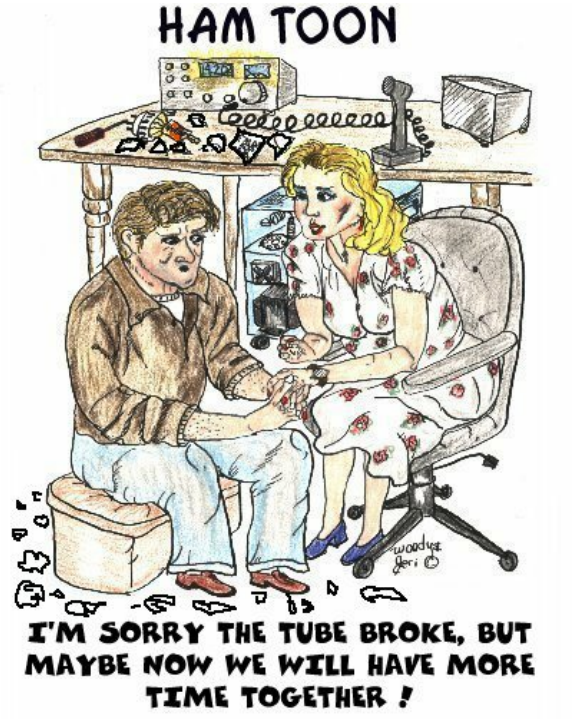
Amateur radio exams are held on the second Sunday of each month at 10:00 AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. There is no pre-registration necessary. Contact the head of our VE team Rick Maybury if you have any questions about monthly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

Monthly member meetings are held on the second Saturday day of each month at noon- no meetings in July and August.

Each Sunday evening at 9:00 PM, 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.

New! The club is open every Tuesday from 5-8PM for CAARA members to stop by and socialize, as well as use the extensive collection of ham radio gear.

radios and different operating modes. You can build your own equipment instead of purchasing it. You can get into kit building .You can operate QRP or build your station to 1500 watts if you want to. If you want to get into the education side of things in ham radio you`ll never learn it all. So maybe with all of this stuff to do sometimes its ok to stick with just one thing and become and expert and that particular field of ham radio. I also like the fact that you can fit ham radio into whatever budget you have. If money is no object then you can spend $50,000 on a superstation. Yet on the other end of the spectrum if you are on a fixed income you can still get on the air by building your own antennas on the cheap and buying used equipment online. Only other thing I can think of for this month is that Icom is scheduled to release the Icom 7610 SDR rig sometime in November so be on the lookout for that. Especially if you got $3500 lying around.



COMING EVENTS

November 9, Saturday Board Meeting- 10am
November 11, Saturday Member Meeting- Noon
November 12, Sunday Coast Guard Event 10am
December 2, Saturday Board Meeting 10am
December 9, Saturday CAARA Xmas Party-

Canadian radio ham's 10 µW ERP 8.27 kHz signal heard in UK

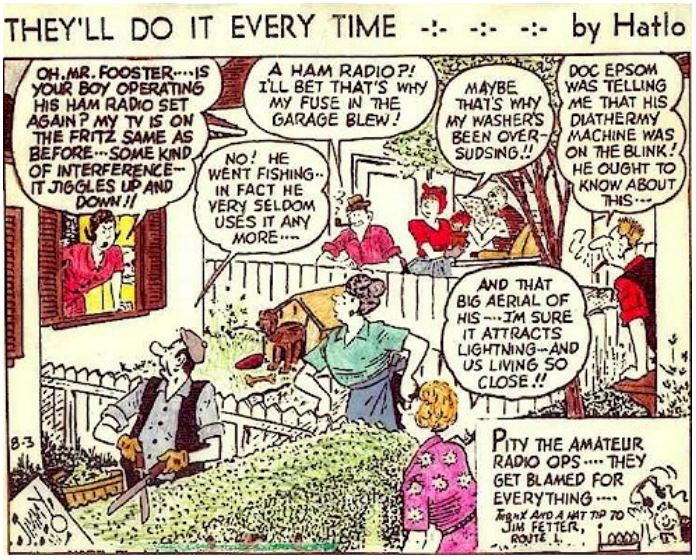
SWL **Paul Nicholson** in Todmorden, UK successfully received an extremely low frequency transmission on 8.27 kHz from **Joe Craig, VO1NA**, in Newfoundland

The ARRL reports:

For Joe Craig, VO1NA, in Torbay, Newfoundland, things have been pretty exciting lately on VLF (very low frequency). He's among the early MF, LF, and VLF experimenters in North America — active even before Canada allocated Amateur Radio bands in that part of the spectrum.
He believes he accomplished a "first" for a Canadian radio amateur on October 22, when his very VLF, very QRP signal on 8.27 kHz (that would be the 36-kilometer band) was copied in the UK.

"After much effort on both sides of the pond, SWL **Paul Nicholson** in Todmorden finally copied a three-letter message," he told ARRL. "It's the lowest-frequency transatlantic message, made possible because of Paul's EbNaut coherent BPSK mode and DL4YHF's Spectrum Lab spectrum analyzer." Even more amazing: The power was 10 µW ERP.
Craig is permitted to run 10 mW by regulator ISED Canada (formerly Industry Canada). The transmission path was more than 3,500 kilometers (approximately 2,170 miles).

Read the full story at
http://www.arrl.org/news/tiny-lf-signal-makes-the-hop-from-newfoundland-to-the-uk



CAARA QUARTERLY EMCOM DRILL

Ross W1RAB and myself activated his quarry in Lanesville in Gloucester MA on Sunday afternoon on October 8th. The weather had just stopped raining and DX conditions were good.Ross used his "Bucket Portable " HF radio system in a 5 gallon bucket which held a Icom 7000 and a power supply with a end fed dipole hanging out of a 40 ft high bucket truck while I used the Icom 7300 an an inverted V 4 band dipole in my usual set up.Ross worked one station on 40 meters and I was able to work Barcelona, Slovenia, Finland, Belgium, California, Georgia, Illinois and a Vermont Parks on the Air station. All these stations I worked on 0 and 40 meters.I tried 10 meters and 6 meters but no luck with the propagation. Afterwards we had a great hot dog and pasta salad lunch made by Ross and Christine- Thanks for the lunch guys! A fun time was had by all *Dean- KB1PGH*

Dean on the left as seen from the bucket truck mobile station Ross was operating hf from about 40 feet high.

Disgusting

By Curtis- AA3JE

"I CAN'T BEAR TO GO INTO THE BASEMENT!" said "SHE WHO MUST BE OBEYED".

"There are no bears in the basement," I replied, (my hearing is going, but not fast enough). "Perhaps a few mummified mice, but no bears."

"DIDN'T YOU READ THAT AD FOR A FREE HEARING EVALUATION I CUT OUT OF THE PAPER?"

"Waste of money. I already know my hearing sucks. Too close to the 155 mm howitzers when I was with the Marines."

"You should go."

"And be fitted with a $1600 hearing aid that is so small I could not see it with a magnifying glass? NO thanks. Anyway, what were you saying about bears?"

"THE BASEMENT IS DISGUSTING."

"I don't entertain down there a lot."

"I WANT YOU TO CLEAN IT OUT."

Now this was scary. There are things down there I don't want to face without a stun gun and a whip. Problem is, the stun gun and the whip are down IN THE BASEMENT!

But, being a man who never refuses a challenge, I sent off for some boxes, rounded up the trash cans, and set off down the stairs. I know that some people clean the basement with a broom. Me? I need a grain shovel and a number of 55 gallon trash cans.

The problem is that when I was working in Connecticut, prepping a house for sale in Maryland, and living weekends in Rockport, I tended to buy what I needed to do a job, and ended up with 3 of everything. This, coupled with my habit of never putting anything back where I found it (Why? It was in the wrong place anyway), means that there is a lot of duplication.

So I had a plan. I would lay out "alike" things on the workbench, keep the best one, and discard the rest. While good in theory, there were problems.

"OK, Multi-meter, 1940s, with probes, slightly damaged." Now this is a beautiful, solidly built meter that can stand air drops by parachute. Problem is, that someone had it set on 1 VDC and plugged it into the wall socket. The needle is wrapped around the pin. I keep it because some day I will find a meter to repair it.

"OK, Multi-meter, 1960s, Heath Kit, Works mostly." I have never found out what mistake the builder made. It reliably works, but returns a value 8.7 times the actual voltage. I set it aside.

"OK, Multi-meter, 1980s, Radio Shack. Perfect working order, minus leads." This one has a funny socket for the probes. If I can find the right probes, it will work great.

"OK, Multi-meter, 1990s, Japanese." This one actually works, but uses an odd battery. Hard to find.

"OK, Multi-meter, 2005, Brand name." This one actually works and I can get the batteries.

"OK, Multi-meter, 2015, Ace Hardware." A nice, solid, working meter.

You can see the difficulties. Who could get rid of such bargains? Sighing, I cut myself down to two, working, battery equipped, probe equipped, multi-meters.

It took hours. I sorted, finding things I had missed for years.

I discovered I had:

12 Vernier calipers. 5 mechanical, 7 digital.
14 blades for a band saw I have not owned for 20 years.
Complete tooling for a 1924 South Bend Metal Lathe
9 complete 3/8 socket sets
9 complete 3.8 metric socket sets.
12 HF tube receivers and transceivers.

Then I found the box with 20 Morse keys.

After a week of sorting, and painful triage, I proudly announced, “Basement’s all cleared out. I got rid of a lot of stuff.”

“IT’S MORE DISGUSTING THAN EVER!”

I was baffled.

“What do you mean?”

“THE FLOOR! THERE IS SOME KIND OF AWFUL BLACK STUFF THAT YOU TRACK ALL OVER THE HOUSE”

I knew immediately what the black stuff was. The technical term is “DIRT”. I got out the shop vac and in less than an hour I had the floor back to it’s normal off-brown color. It hasn’t been white for 30 years.

Communication is the heart of a happy marriage.

CLUB UPDATES

Upgrade to General Class is underway at the club every Saturday morning from 10-Noon. Gardi is the master of ceremonies teaching from the Gordon West Book which we think is a better choice than the ARRL book we have used in the past….with dismal results. Gardi opens the door early at 9am for any students who might have questions from the assigned reading material. Students are urged to take online tests for practice as well as using the included CD which comes with the course manual.

Assisting Gardi is Bill- W1WMM and Jon-K1TP. The students are encouraged to get on the air on the club station to whet their appetite for HF operation. There is a lot more to ham radio than just the vhf-uhf repeaters.

On another note, if you have been a club member in good standing for at least one year, you have the option of being able to use the club station on the first floor anytime you wish. You do need to be checked out and signed off by a board member to be granted this privilege.

The member meetings are now the second Saturday of each month at the club at noontime. We will serve lunch on November 11 and meeting will follow. We are hoping to get more people to meetings by moving it from Wednesday nights to Saturday morning. Plus we are going to feed you!

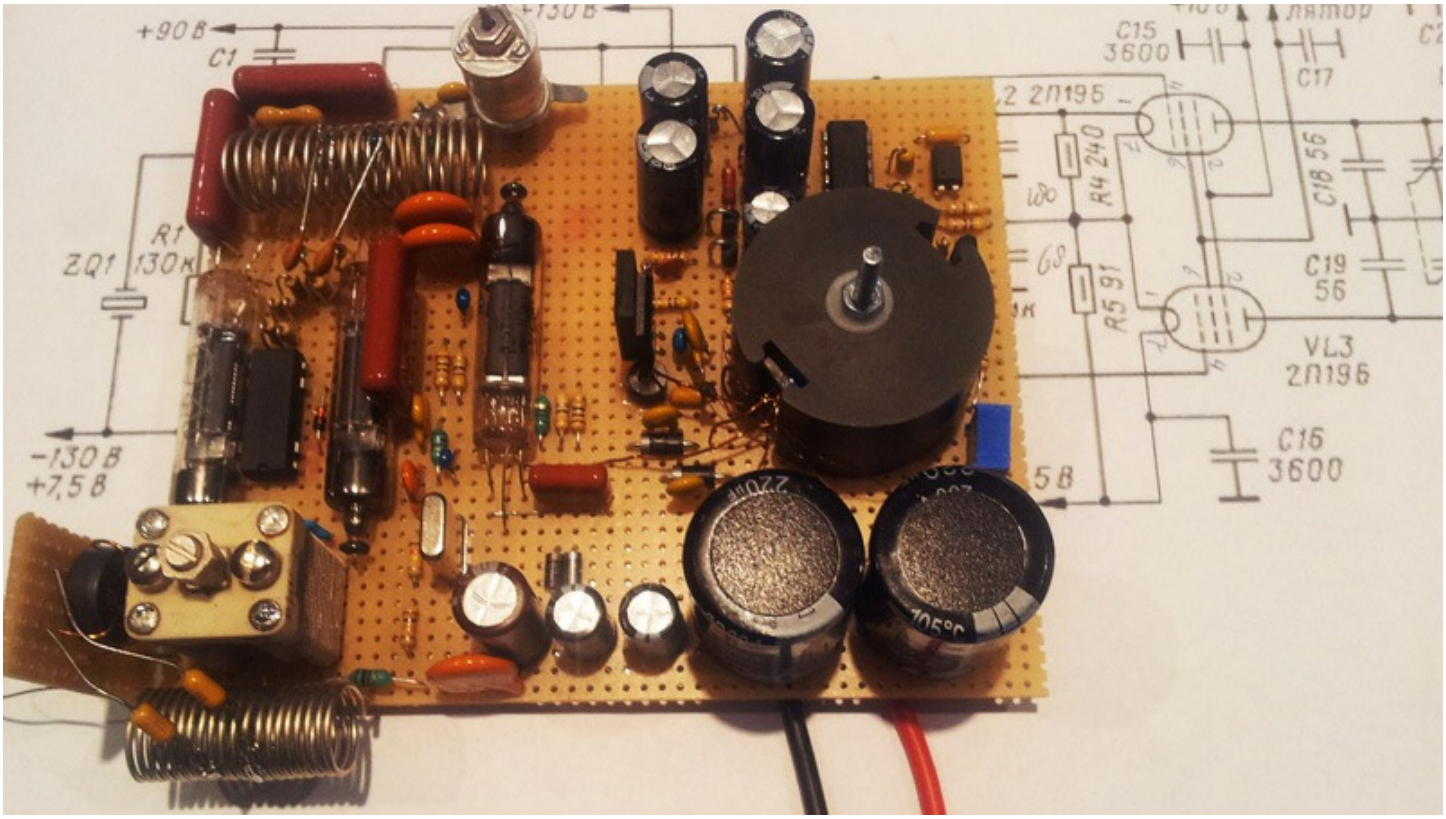
The **Annual Christmas party** will also be held at the club on a Saturday at noon on December 9th, again to make it easier for more members to show up and enjoy the club building. A good chance to see the new siding project! We will be serving roast turkey and baked ham with all the fixings and homemade desserts.
Pries will be given away and a 50-50 raffle to help out the club treasury.

I am going to ask the BOD to consider offering a Sunday morning breakfast which will benefit either a Scholarship or building fund. Bill-W1WMM is ServSafe Certified and has cooked professionally in Florida and has offered his services. It is about time we start using our new refrigerator and stove and pump out some food for the members. More to follow, tune in to the Sunday night net at 9pm weekly, check your emails from the club.

The club siding project is half done and looking very sharp. We also had a new rubber roof installed over the kitchen addition which was on its way out and will protect the new kitchen ceiling that was replaced a year ago. Stop by and check it out.

Mini-Review: Noise Filter

I just received this noise filter in the mail as a house warming gift from a ham friend who sells these filters. He explains: Jon, what the filter is two 1-1 50 ohm filters that are 180 degrees out of phase from each other. All the best , Ray
Ray sells them word of mouth and at ham fairs….and yes the darn things work if you want to get rid of or cut way back on man made noise like street lights, ignition noise, etc. They go for about $75 shipped. If you want to try before you buy, I will loan you mine. Jon- K1TP



This is a working replica of the Sputnik radio built by ham-**PA3CNO** with a switching power supply….neat!

Greetings!

Well, I just returned from a very nice gathering in Starkville, MS that I thought I would share with you my travels. (9/27-10/2)
It all began on Wednesday, September 27th 2017 at 3:00am for me. I had made arrangements back in June to attend this special event and was enroute to the C&J Trailways Bus Station in Newburyport. My travels this day would be to travel at 3:30am to Logan Airport in Boston and after arrival connect with an American Airlines flight at 6:00am to Ronald Reagan Airport in Washington, DC.
From Washington, DC at 8:45am, I would travel to Memphis, Tennessee (11am) to meet up with my friend at Noon, Tom Medlin, W5KUB. Travel was very orderly and rental car was standing by upon my arrival and in 20 minutes, I was at my hotel in Germantown, TN for the night.

I met up for lunch with Tom, W5KUB, and local fellow hams, Max Gray, K1MAX, and Walter Rook, NR3E. I was very interested in learning Walter was a pilot for FEDEX in Memphis.
Wednesday Night I met up with Max Gray, K1MAX, to participate in the International Order of Krazies Net (IOOK) and afterwards, we went to dinner downtown in Memphis for dry rubbed BBQ ribs at the Rendezvous Restaurant. A great meal for $19.00 + tax.

Thursday Morning, at 8am, I met up with Tom, W5KUB in Collierville, TN and we drove 3 hours plus to Starkville, MS, which is the home to MFJ Enterprises. Friday and Saturday would be a gathering for the 45th Anniversary of MFJ Enterprises.
Upon arrival and after introducing ourselves, we proceeded to Martin Jue's office. Martin was chatting with a couple people and we excused ourselves and said hello.

Tom Medlin, W5KUB, has a program on the Internet called Amateur Radio Roundtable, which is broadcasted on Tuesday evenings on w5kub.com at 8pm Centeral or 9pm East Coast. Our purpose for the visit was to record video of various entities of MFJ which include Amertron, Vectronics, Cushcraft Antennas, Mirage and The Metal Shop.

We visited all of the businesses and got a personal tour of each which we recorded on video. The last business was MFJ and it was close to 4:00pm so we got through that one last video by 5pm.

We went out for dinner later that evening with Martin Jue at a great restaurant. We were less than 4 miles from Mississippi State University of which numerous dinner patrons were from the University.
Friday was first day of the 45th Aniversary celebration. I met quite a few hams from the local area and I was introduced to Justin Johnson, G0KSC, who is a world reknown antenna expert and the owner of InnovAntennas. He is also the author of the VHF/UHF chapters of the 2017 ARRL Antenna Handbook. I also had the pleasure of meeting Ted Randall, WB8PUM, Owner and Chief Engineer on WTWW, for you shortwave listeners on 9930 Khz or 5085 Khz.

Again, we went out to dinnerto celebrate the 45 years of MFJ's operations and went back to the Motel for the night. See Cake Photo!
Saturday Morning, back to MFJ Enterprises for 7:30am. I volunteered to help administer the Exams that were given 10-12Noon that day. We had quite a turnout. I believe there were 18 candidates the results were 7 Extra Class, 3 Generals, 5 Technicians and a few who did not pass.
At 12 Noon, the venue shifted to McKee Park just down the road. It was a lovely park area with a huge pavilion which served as the food service line, however, there were about 512 people that showed up so with chairs we brought along, there was seating for all. The menu for lunch was Southern Fried Chicken, Green Beans, Cole Slaw, Biscuits and non-alcoholic beverages (Park Rules!!!)

Martin was given a plaque in honor of his 45 years in business and a Proclamations was offered by the Mayor of Starkville, MS. Who would think that a small CW Filter, on a small board, back in 1972; which he manufactured in a hotel room paying 50 cents a day, would grow to more than 2000 items in his catalog.

If you would like to see the video and meet Martin F. Jue, please go to w5kub.com there is a tab for archive shows. The date to look for is October 2nd for the first segment. This coming Tuesday, October 9, 2017, you can watch the second segment live on w5kub.com at 8pm Central, 9pm East Coast time. This program will continue with the other entities of MFJ's Unbrella.

I got up early on Sunday as the Sunday Morning IOOK Nets are at 8:30amand 9:30am inTennessee. I also had a few hours on Sunday to drive around and look at the sites of Memphis. I had a farewell dinner with Tom and his wife Kathy and Max Gray at the Longhorn Restaurant in Collierville, TN, and went back to pack and get ready for Monday and my return trip to Boston.

I was lucky to have wifi for checking into the CAARA Net via Echolink on Sunday Night at 9pm here in Gloucester.
I have been told by Martin Jue, K5FUL, if you are ever in the Starkville, MS area, and find his company located at 300 Industrial Park Road, you will be given a personal tour of all his companies. He will put you with a person to personally guide you through the vast spaces of MFJ, Amerton, Vectronics, Cushcraft, Mirage and the Metal Shop.
I returned on Monday, October 2nd around 6pm. I was a bit tired, however, it was worth the travel.

73,
BILL POULIN, WZ1L

Coast Guard Auxiliary

Special Event Radio Day

Will be conducted at CAARA

6 Stanwood Street, Gloucester

Special Event Station Guide:

Sunday – 12 November 2017

This year Stations have the option to operate on

November 10, 11 and 12 – Any or All if they desire.

Purposes of Event

- **Commemorate 78th Anniversary of U.S.C.G. Auxiliary**
- **Spread the word on the event and purpose of C.G. Aux.**
- **Get members and non- members involved with Comms.**
- **Involve any communications staff in "hands on" participation**
- **Bring new members into the Auxiliary**
- **Enjoy Auxiliary fellowship**
- **Honor our Military Veterans**

Special Event Station Requirement

- **Amateur radio band H.F. and VHF frequencies only.**
- **Each official station must have a minimum of "one" H.F. station operating during the event!**
- **Invite members and non- members to visit**

Annual CAARA Christmas Party

The Christmas party will be held on Saturday, December 9th **at 1PM** the CAARA club headquarters. We will have it spit shined and ready for service. I suspect a turkey will be roasted and a spiral ham will be baked. The picture above was last years and we had a full house. Raffle prizes, and a 50-50 raffle….good time…FREE!

Mark your calendar for this club event noting the new time: 1PM. We will be calling you in late November or early December to get a head count and to ask you to bring one side dish or dessert.

STATION OF THE MONTH: - K1TP

After a brief time without having a place that I could hang antennas, I bought a house with tall trees and plenty of space. The Icom 756PRO III came out of the box with my new radio sign. The tuner is a TenTec 238, the Amplifier is an Acom 1010, and the microphone a Heil Goldline, and the key is a Vibroflex.

Shown in the below picture, my Tentec Omni VII which I use for cw only with matching tuner and speaker. The antenna right now is a 120 foot dipole at 50 feet fed with 450 ohm ladder line into a balun at the station.

CLUB SHINGLING PROJECT UNDERWAY

The long awaited building project is underway. The front was shingled last year and now we are on to the final phase. We are shingling all the other sides, replacing rotten trim, replacing the kitchen roof with a rubber roof, and painting all the trim.

The neighbor on the corner has sold the property and the new owner is completely rehabbing the building so our neighborhood is going to look great. Pictures below show the first floor interior recently painted.

Reinvention of Amateur Radio

Lack of growth in radio amateur numbers, and how to make Amateur Radio attractive and relevant to young people, is very much on the minds of many International Amateur Radio Union (IARU) member societies, including the Wireless Institute of Australia (WIA).

A common practice is for any organisation, commercial or otherwise, to reinvent itself about every 10 to 20 years. Think about this process that happens in the business world, and with community and social activities.

In Australia, we introduced the Limited licence – fondly dubbed the Z-call, after the first callsign suffix block issued – then the Novice, and later, the Foundation licence. These responded to the need for reinvention in their eras. That time has come again, only more quickly, driven by the exponential growth in technology.

A few years ago, the WIA began work with the regulator, the Australian

Communications and Media Authority (ACMA), to plan a future for Amateur Radio. Recently, the WIA consulted widely with members and non-members on the future Licence Condition Determination (LCD). A review and reform of the LCD is now expected to begin soon, to be finalised in 2018.

Keeping in mind that a new LCD could remove the barriers that hamper the use of existing and future technologies, we must also broaden the scope of Amateur Radio to make it an obvious choice for today's tech-savvy young people and for future generations.

It's time for current radio amateurs to more than ever think about the future and take action to recruit technically-minded or inquisitive people interested in exploring what the dynamic and diverse activities Amateur Radio offers now, and will continue to develop in the years ahead.

The recent IARU Region 1 General Conference held a workshop on 'The Future of Amateur Radio', and discussed many things that the WIA has been exploring to make the hobby more attractive and relevant to today's technology-rich society. The Region 1 workshop has provided many ideas from member societies in Europe, Africa, the Middle East and Northern Asia.

Reprising the Region 1 initiative, "Attracting youth to Amateur Radio" will be the theme for the late 2018 Conference of IARU Region 3, comprising member societies across Asia and the Pacific.

The WIA agrees with the two challenges that came out of the Region 1 workshop

• Increasing the inflow to Amateur Radio – particularly from young people

• Making member societies the "must join" organisations for all radio amateurs.

A clear message from the workshop was that, attracting young people needs to be led by young people. This meant that the use of Twitter, Facebook and other social media, for example, must be driven by young people. At the Region 1 Conference, IARU Region 3 Director, Peter Young VK3MV, spoke about the School Amateur Radio Club Net, showcasing its website (www.sarcnet.org) as a resource centre. He also mentioned the STEM – science, technology, engineering, maths – connection to Amateur Radio and how radio amateurs can assist teachers in schools with the technical details and leave the teaching to the professionals.

The WIA may consider that things like experimentation, research and pioneering – things Amateur Radio was widely known for once, but now overshadowed by techno-information overload – could be revived with a broader modern appeal for the hobby. At the same time, Amateur Radio has to be fun, a way of learning in a classroom setting and through self-learning, and broadened to embrace pursuits such as IT-wireless, radio astronomy, radio control, mesh networks and the like.

With those dynamic potential changes, Amateur Radio could be a larger and meaningful part of the community, instead of retreating to a fading 'thing' of the past.

Accidental satellite hacks can re-broadcast cell towers

Hackaday report a lot of us will use satellite communications without thinking much about the satellite itself. It's tempting to imagine that up there in orbit is a communications hub and distribution node of breathtaking complexity and ingenuity, but it might come as a surprise to some people that most communications satellites are simple transponders. They listen on one frequency band, and shift what they hear to another upon which they rebroadcast it.

This simplicity is not without weakness, for example the phenomenon of satellite hijacking has a history stretching back decades. In the 1980s for example there were stories abroad of illicit trans-atlantic serial links nestling as unobtrusive single carriers among the broad swathe of a broadcast satellite TX carrier.

Just sometimes, this phenomenon happens unintentionally. Our attention was drawn to a piece by [Harald Welte] on the unintended rebroadcast of GSM base station traffic over a satellite transponder, and of particular interest is the presentation from a conference in 2012 that it links to. The engineers show how they identified their interference as GSM by its timing frames, and then how they narrowed down its source to Nigeria. This didn't give them the uplink in question though, for that they had to make a downconverter from an LNB, the output of which they coupled to an aged Nokia mobile phone with a wire antenna placed into an RF connector. The Nokia was able to decode the cell tower identification data, allowing them to home in on the culprit.

There was no fault on the part of the GSM operator, instead an unterminated port on the uplink equipment was enough to pick up the GSM signal and introduce it into the transponder as a parasitic signal for the whole of Europe and Africa to hear. Meanwhile the tale of how the engineers identified it contains enough detective work and outright hardware hacking that we're sure the Hackaday readership will find it of interest.

You can read more here:
https://hackaday.com/2017/10/02/accidental-satellite-hijacks-can-rebroadcast-cell-towers/?utm_source=amateur-radio-weekly

FCC Affirms Huge Fine in New York Interference Case

The FCC has affirmed a huge fine of more than $400,000 on Jay Peralta, a Queens, New York, man who has admitted to making unauthorized transmissions on New York City Police Department (NYPD) radio frequencies, maliciously interfering with officers' communications. The FCC had sent Peralta a *Notice of Apparent Liability* last April 14. Peralta, 20, is alleged to have transmitted false bomb threats, false claims of criminal activity involving firearms, false distress calls from purported NYPD officers, and threats against individual NYPD officers. The unauthorized transmissions began in 2016, according to the FCC.

"Mr. Peralta has not filed a response to the *NAL*," the FCC said in an October 10 *Forfeiture Order.* "Based on the information before us, we find no reason to cancel, withdraw, or reduce the proposed penalty, and we therefore assess the $404,166 forfeiture the Commission previously proposed in the *NAL*."
The FCC has calculated the precise forfeiture at $404,166.

The FCC said the transmissions occurred from April through August 2016. The NYPD subsequently provided the FCC with a written statement by Peralta, who is currently in custody pending trial for related charges, in which he acknowledged making nine unauthorized transmission on the NYPD radio system, the FCC said.
"If such payment is not received within 30 days, the matter is referred to the Justice Department for collection," the FCC said.

Peralta was arrested last fall along with two other men suspected of committing several robberies. According to news accounts, police found a cache of scanners and radios in one of the suspects' homes.
The FCC said it was alerted by a Twitter post about an unlawful intrusion on the NYPD radio system and dispatched an Enforcement Bureau agent to check it out. On September 30, 2016, the NYPD contacted the FCC's New York

Office and advised that it had arrested Peralta and another individual in connection with unauthorized transmissions on NYPD's radio system. According to police reports, the other individual arrested — Ricardo Torres, 29, described as "a ham radio enthusiast" in some news accounts — allegedly provided the radios used.

Torres, is said to hold an FCC General Mobile Radio Service (GMRS) license. Police said they found 15 portable radios, 9 scanners, roof-top antennas, an amplifier, and assorted other electronics in Torres's apartment.

Global Effort Under Way to Restore Dominica's Amateur Radio Capabilities

The **Yasme Foundation**, **Yaesu USA**, the Foundation for Amateur International Radio Service , and individual **GoFundMe** donors have joined forces to restore country-wide Amateur Radio communication on Dominica in the aftermath of Hurricane Maria. Private pilots Brian Machesney, K1LI, and Dave Bridgham, N1AHF, are set to take off on October 14 from Vermont with a planeload of Amateur Radio gear, relief equipment, and supplies to better prepare the small Caribbean island nation for disasters. Bridgham is a volunteer for the Dominica "**Angels to Eden**" airlift spearheaded by round-the-world pilot Brian Lloyd, WB6RQN.
"Almost a month after Hurricane Maria, there are still families waiting to hear whether their loved ones are alive or dead or in serious need of medical attention," said Michelle Guenard, Machesney's spouse and spokesperson for the joint effort. Guenard pointed out that in the aftermath of Hurricane Maria, which devastated Dominica and its telecommunications infrastructure, "the only news of their families and friends was gleaned through the transmissions of local [Amateur Radio] operators." She noted that many were able to listen to live streams of ham radio traffic via Facebook and YouTube live feeds.

Guenard explained that many Dominica expatriates now want to equip their home villages with ham radio stations, and she started a GoFundMe campaign for that purpose. "Once this equipment arrives and is installed throughout the island, we will have achieved our goal, 'to provide every human being on the island of Dominica with the ability to call for help.'"

Working with a network of contacts developed over decades of visits to Dominica, Machesney and Guenard established a partnership that has pulled together more than $30,000 worth of radio equipment and solar-powered battery-charging stations. "When fully deployed, Dominica will be part of a robust local, regional, and worldwide network of Amateur Radio stations," Machesney said.

"Many of our members lost everything in the hurricane," said Joseph Raymond, J73RJ, President of the Dominica Amateur Radio Club Inc. (**DARCI**). "The donated equipment will dramatically improve our near-term ability to connect towns and villages all over Dominica, and to stay connected well into the future."
Yasme President Ward Silver, N0AX, said his organization began working with the Dominica Amateur Radio Club and Dominica's National Telecommunications Regulatory Commission (NTRC) last year to recruit and equip new ham radio operators for just such an emergency. "We are grateful to Yaesu, FAIRS, and the individual donors for joining us in this effort," Silver said.

Mikio Maruya, WA6F, Executive Vice President of Engineering for Yaesu USA's Amateur Division, said Yaesu "welcomes this opportunity to assist Dominica with its recovery from the devastation of Hurricane Maria."

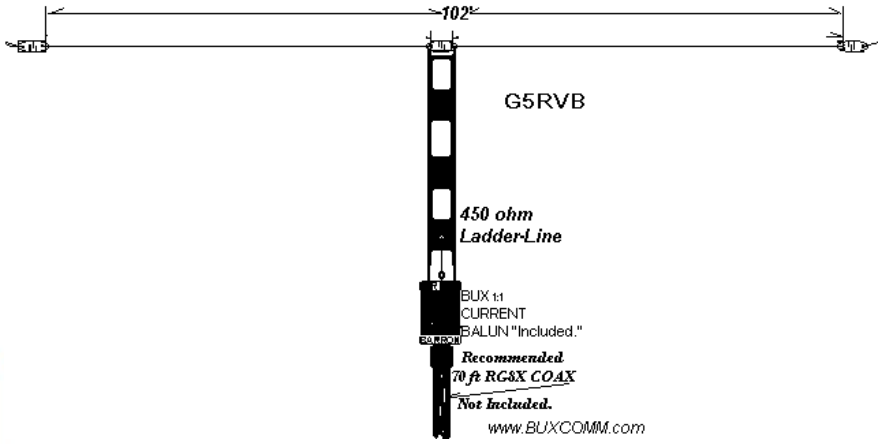
FAIRS President Dave Larsen, KK4WW, pointed out that access to reliable power sources for ham radio equipment is often overlooked when preparing for emergencies. "These portable off-grid systems will help expand the coverage of Dominica's surviving repeater, permit 24/7 field operations by recharging batteries on handheld radios, and supply base stations in villages that are likely to remain without commercial power for some time to come," Larsen said.

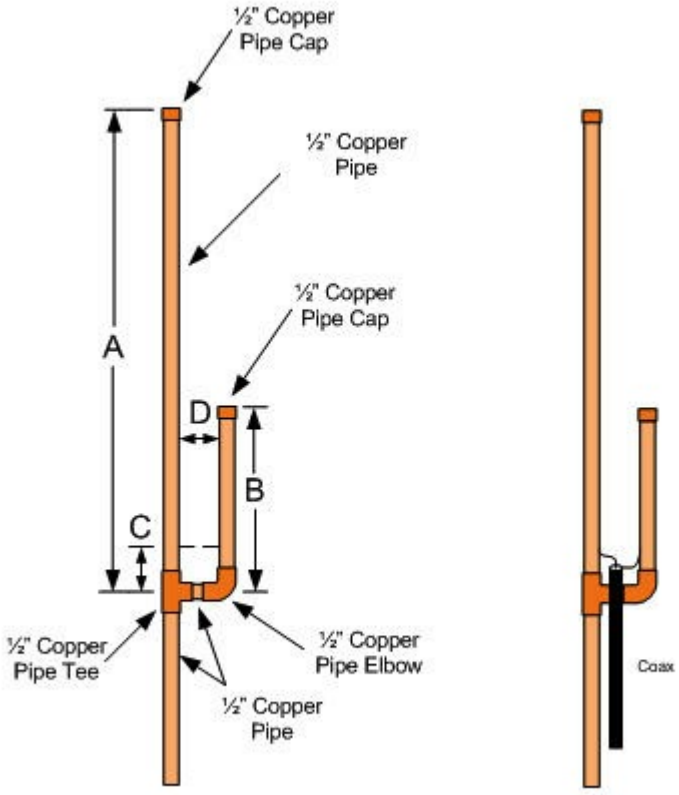
Coming Attractions

The topic for the January 13, 2018 Member Meeting will be devoted to building homemade antennas. A demonstration of how to build a copper pipe J-Pole as well as a ladderline foldup VHF/UHF antenna. You may attend the meeting just to watch or build your own to take home.

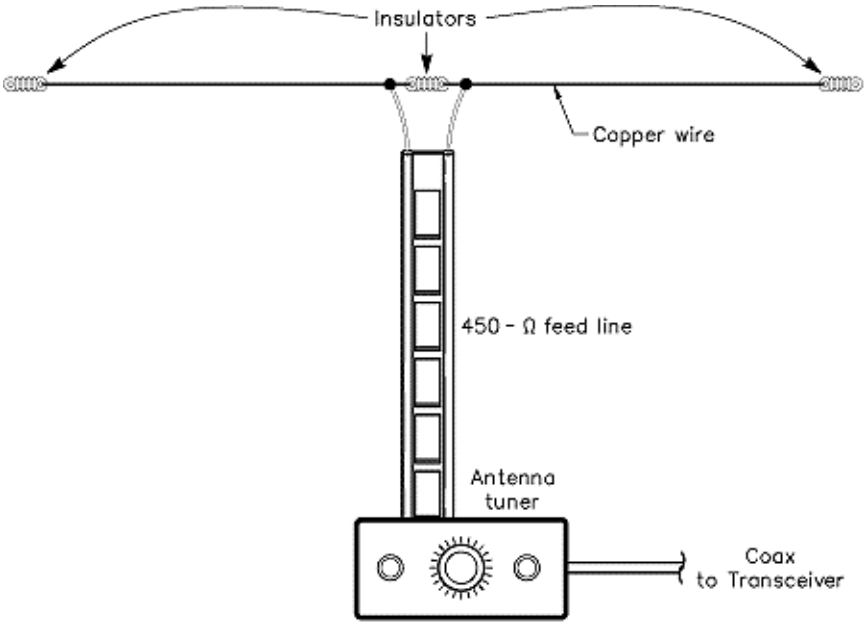
We will also show how to construct your own dipole as well as a G5RV antenna….you can make your own!

The meeting starts with a lunch prepared by our ServSafe certified cooks and follows with the member meeting. We look forward to seeing you at the meeting.



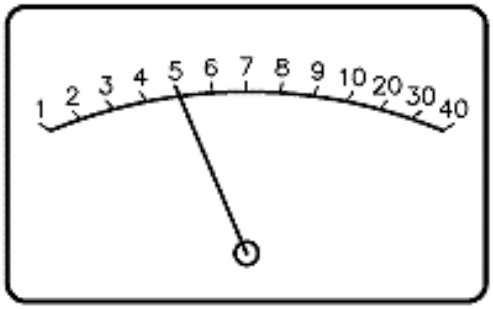


TECH TIPS: You can work the world with 100 watts on HF if you use a decent wire dipole antenna. I have worked all states and well over 175 countries using a dipole on 10-80 meters. Having a beam for 10-20 meters is a big help but do not despair if you do not have the property nor money to erect a beam. A simple wire antenna will work! I suggest a dipole fed with ladderline instead of coax for several reasons. One is a ladderline antenna can be run on all bands with a tuner, not quite that simple feeding with coax. The ladderline feed line is also more efficient and more power is effectively radiated.

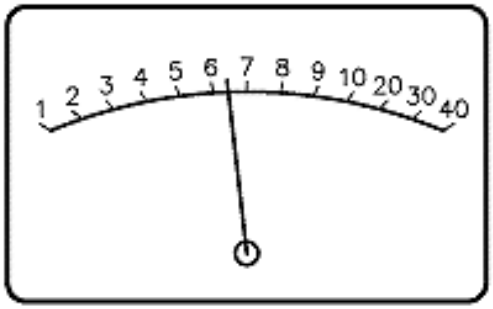


TECH TIP:

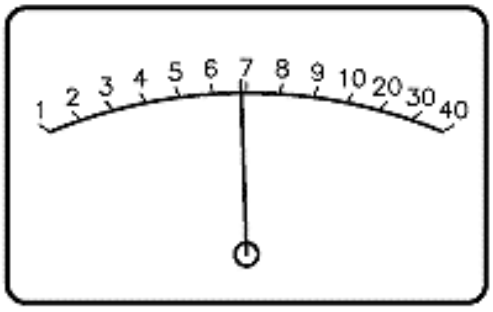
You can increase the performance of a simple dipole by using low-loss open-wire 450-ohm windowed feed line. This is one of the easiest, inexpensive antennas for the HF beginner. Just string up a dipole made of two equal lengths of copper wire. Don't worry about the overall length; just make it as long as you can. Connect the feed line to the center insulator and run it back to an antenna tuner with a balanced output. Attach coax between the tuner and the radio and you're in business on several bands!



100 W



500 W



1000 W

Above illustrates you the difference on the receive end running different power levels….surprising isn't it! 100– to 1000 watts only gives you a 2 S unit boost….and that comes at a pretty good cost. The most important thing is to put up the best antenna your budget can afford and building lot tolerates. Lastly, add power.

Adding a hf linear is more than just purchasing the amplifier. You will need 220 volts in the shack to run the linear effectively, an expensive high power tuner, and feed line that can deal with the increased power.

The Cleanest Street in Gloucester!
Can you guess which Street it is?

By David Linsky N1CDL

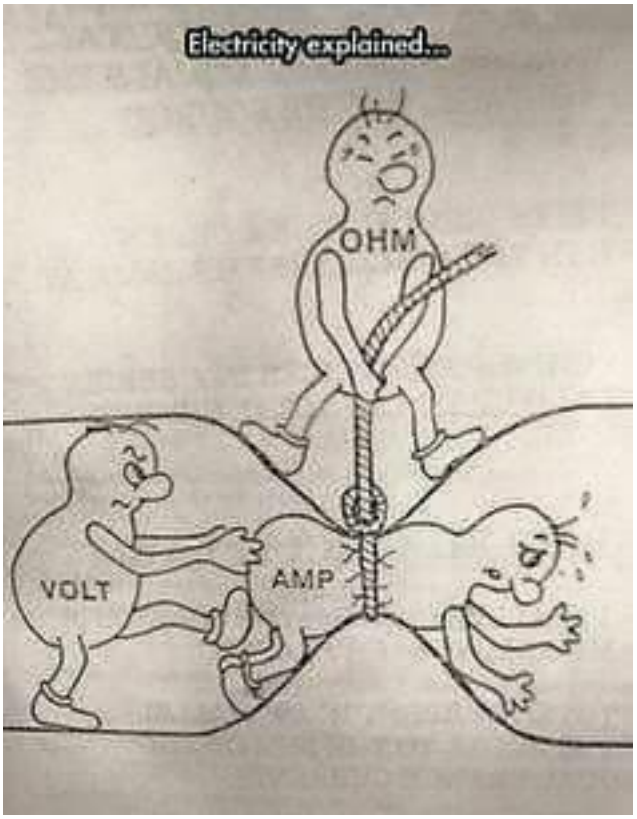
Today a member of CAARA (Cape Ann Amateur Radio Association) once again brought his innovative and unique de-littering equipment over to CAARA Communication Center Headquarters to carry out his regular de-littering of the premises.

It only took about 5 minutes to cover the front, back, as well as both sides of the entire property! This is because there was no litter to be found anywhere at CAARA! Amateur Radio Operators are known worldwide to be "non-litterers".

He then proceeded out on to Stanwood Street to continue his de-littering journey. He carefully de-littered both sides of Stanwood St. from Washington St. all the way to the other end to its intersection with Gee Ave.
The 'CAARA & Stanwood St. De-litterer' was pleasantly surprised with the small amount of litter that he retrieved. Only one water bottle (but lots of water bottle caps). Some pieces of broken glass (he saved some fortunate motorist or motorists a flat tire today). A fair amount of paper. Some fast food napkins, but no fast food containers at all. (That's good news because he has picked up lots of fast food containers during past de-littering journeys), and 238 cigarette butts.

Also good news is that there was no litter and there were no cigarette buttsanywhere on the grounds of CAARA headquarters! All CAARA members as well as visitors to CAARA have always been very responsible folks.
The 'CAARA & Stanwood St. De-litterer' exchanged a friendly hello with a charming couple who had parked along Stanwood St. and was walking to a nearby house.

Midway through this de-littering journey, a motorist actually briefly stopped and commented very favorably about how clean that Stanwood Street looks.



It's always nice to receive a compliment, even though the 'CAARA & Stanwood Street De-litterer' was neither expecting, nor seeking one.

So, at this point, you have no doubt figured out which Street is the 'Cleanest Street in Gloucester'. Yes, that's correct, it's Stanwood Street!

SUNSHINE COMMITTEE

Thinking of John Graves- WA1JG and family in Manchester.

Quick healing to Ross- W1RAB who injured himself in his bucket truck repairing a storm damaged antenna. Many stitches later, he will be fine!