

CAARA NEWS



Cape Ann Amateur Radio Association
March 2018 Edition



PRESIDENT'S COLUMN

by Jon- K1TP

Another interesting month at the club, the winter blah's don't seem to bother us. The February member lunch meeting was a huge success with about 20 attending and the twice monthly Sunday breakfast is catching on.



The Saturday, March 10 noon meeting is featuring a Boiled Dinner with all the fixings. The cost of the CAARA membership is a bargain!

Stan- W4HIX will be running a tech in a day course this Spring at the Lanesville Community Center (LCC). The tentative date is Saturday, April 21, so you can alert potential friends and family who might like to get a Tech license and give ham radio a try.

I am still looking for an individual who would volunteer to serve as the Club Clerk until the fall club election. It entails coming to a board meeting once a month and writing down the details of what happened at the meeting; what we voted to do, etc. How about it? Give me a call for more details, it is a painless position and it needs to be filled ASAP.

**Saturday, March 10
at Noon
Member Meeting
with Lunch-
Boiled Dinner**

The remote station is still being worked on by Larry-AJ1Z and is still in the testing stage using digital modes and when working correctly, SSB mode will be added. The radio is the FT-897D we operate on the second floor and it will have a standalone antenna so it can be used at any time 10-40 meters.

Echolink now has a backup power supply on it thanks to a donation by Ron- N1RJP and installed by Larry- AJ1Z. The Echolink system has been working great for over a year....knock on wood.

We are entertaining the idea of a club fundraising project building baluns for Endfed antennas. Chris-K1TAT is taking the lead and pricing components. I think this project is going to get off the ground and make a few bucks for the club.

INFORMATION DESK

By Dean- KB1PGH



As you will see in this month's newsletter I have done a review on antenna coax cable. So for this month's column I will cover a bit on coax cable as well. If you're just getting into ham radio here are a few tips on what coax to use. If you're going to use a 100 watt transceiver and a simple dipole buy the ABR brand RG 8X coax that I talked about in the review. If you're going to use an amplifier I would suggest using the RG 8 brand of coax cable. It's much thicker and has lower loss.

You can also use another type of coax which is called LMR 400. Both of these two brands should be used for any VHF and UHF setups you have as RG 8X has much more loss on the higher frequencies. By the way, when was the last time you inspected your coax cable? As a rule of thumb you should think about replacing your coax at least once every ten years. Especially around here with all the humidity, extreme heat and cold, and the marine environment.

I also hope that you know that any new coax to antenna installation needs coax seal to prevent moisture from getting into the connection. It is also good to check the SWR on your antenna and coax at least once every 6 months to make sure there are no high SWR issues which are an indicator of antenna and coax problems. Let's see, moving on as over the past couple months I was covering the different specifications to consider when purchasing an HF rig. Now if you are wondering which rig is more "Sensitive" than another before you

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

CAARA Newsletter is a monthly publication of the Cape Ann Amateur Radio Association (CAARA).

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

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Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz 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 New Hampshire, 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 on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced performance.

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 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 of each month at noon except for 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.

buy a rig my advice is don't worry about it. Any new rig you buy today will be more than sensitive enough to receive any HF signal out there.

They measure sensitivity in rigs by "Microvolts" if you look at the numbers in your rigs manual. The truth is the real way to run an HF rig is to turn the sensitivity down in your HF rig via the RF gain knob on 20 meters downwards to where the band noise level barely triggers the AGC. Let's say you turn your HF rig to 20 meters and have a S 5 noise level on your meter. Turn the RF Gain down until the noise level is at S 1 on the meter. You will hear more stations this way because you just improved your rigs 'Dynamic Range' that I talked about a few columns ago. Believe me that turning your RF gain down makes your rig "Hear" better. It's counter intuitive but it works.

Of course if you really want to hear better on HF get a decent speaker or invest in a good pair of headphones. Looking ahead if your looking for some HF action the ARRL International DX phone contest will be held on March 3rd through the 4th and the Annual ARRL Field Day event will be held on Saturday June 23rd through Sunday June 24th. See you next month!

PRODUCT REVIEW by Dean- KB1PGH

I realized that I have not done a review on coax cable so we will take a look at ABR 218 ATC 240 UF RG 8X Coax by ABR Industries. As you know I operate HF Portable so I need a good quality coax.



If your looking to purchase or replace any new coax for your home QTH dipoles, mobiles or portable HF setups please take a look at the ABR Industries RG 8 X brand of coax. This coax is built much better than the bargain basement brand of RG 8 X. On the outside this coax has a non contaminating ,UV resistant,direct burial black jacket with water proof heat shrink tubing on each end. That means that the coax will not break down as it bakes in the summer sun.

I've seen cheap coax get,"sticky" before. The inside of the coax has a tinned copper stranded center conductor and a gas injected foam dielectric which keeps out the moisture and stands up to heat since cheap coax has a dielectric surrounding the center strand which melts into the center strand over time and causes shorts. The best part about this coax is the center conductor is

surrounded by a 100% foil shield which sits on the dielectric thus reducing interference. This coax also has 30% lower dB loss than other coax so a bit more of your signal gets out. This coax is very flexible and you can purchase it from 1.5 ft jumpers all the way to 150 ft. A 50 ft roll of this coax is \$ 38 at Ham Radio Outlet includes pl-259 connectors.

I would highly recommend buying this over any RG 58 coax or cheaper brand of RG 8 X coax cable.

AMATEUR BECOMES PRESIDENT OF HARVARD

Add to the long list of achievements by amateur radio operators the presidency of Harvard University. As we hear from Heather Embee KB3TZZ, the newest university president taking office this summer has a mission - and a call sign.

Lawrence S. Bacow, KA1FZQ, of Brookline, Massachusetts, is taking office as the 29th president of Harvard University this summer. A graduate of MIT, Lawrence earned three additional degrees on the Harvard campus and now he can add "president" to that list. Bacow will take the reins of the campus effective July 1.

Lawrence, who grew up in Pontiac, Michigan, is the son of a ham radio operator: the call signs W8JYZ and N4MB were used by his father Mitchell, who died in 2007.

There's another reason Lawrence should feel right at home on campus: Harvard University is home to amateur radio station W1AF.

Medicinal Treatment

By Curtis- AA3JE

Recently I had to clean up the shop. It was not easy. I had a stiff battle with the local arts council, as a member had formed the opinion that my collection of stuff had reached the level of "Performance Art", and must be preserved under MA General Law 67-402, "A statute governing the preservation of Culturally Relevant Art on Private Property". It was his opinion that I needed to preserve the space and make it available to the public.

It wasn't the radios. It was the Mechanical Medicinals.

As you know, I spend a lot of time in Auto Parts stores, mostly trying to remediate the effects of my "Shade Tree" mechanical repairs. On those occasions, I end up drifting over to the "Additives" section, like a pilgrim to a holy site.

Now I know "Click and Clack", my spiritual guides, on "CAR TALK", describe such products as worthless and of no value, but it is advice I cannot accept.

I have faith. Or am credulous. Or both.

But give me a shiny label, and well written copy, and I want to believe!

"Miracle Engine Restorer" which promises to reverse the aging process in your engine, free sticky rings, renew worn tappets, reduce oil blow by, and form a miracle protective shield, bonded to the metal, that makes the engine new again.

I first learned of this at age 14, when I was given an ancient Gravely walk behind tractor, by a neighbor who was cleaning his garage. Since I had to mow the family lawn, this was truly a gift! But it had about 4 pounds of compression, and smoked like a WWI Destroyer laying down smoke.

So I went to the Auto Parts store, and asked the clerk.

"It needs new rings. You gotta go get some and put dem in," he said.

"Is there no other thing I can do?" I asked.

He went to a shelf, and got down a shiny can.

"Put in dis stuff. It can't hurt."

It looked like molasses, and was really thick, but it promised to reduce oil blow by.

So I parted with my precious three dollars (this was some time ago), and bought it.

So I added the regular amount. And indeed, there was less smoke. It was reduced from choking to merely gagging. Being inclined to experiment, I added more. Less smoke. And more---even less!

That was how I learned about overdose. At a 50-50 mixture of "Miracle Cure" and motor oil there was a terrible grinding sound, and the motor stopped. Never to run again.

Now any reasonable person would never touch such stuff again.

But I was hooked.

So, 50 years later, I was buying an oxygen sensor, hoping to be able to remove the black tape that I had used to cover that annoying "check Engine" light, when a display caught my eye.

"Nano-teflon" is a breakthrough for older engines.

It looked intriguing. I read the glossy brochure. It described how a colloidal suspension of micron sized particles of super slippery teflon, dispersed in a special formula, coated the moving parts, and solved your automotive problems.

As I was driving a 14 year old Oldsmobile 88, with 165,000 miles, I certainly qualified as having problems.

So I added two cans, thinking that since it was supposed to be put in at 50,000 miles, I might need more than one. Feeling fresh and confident, I headed up Route 95 from Washington to Boston, and to avoid traffic, I started early, at 5 AM.

About 50 miles into the trip, a new light caught my attention. The oil light was flickering, not really staying



on, but just slowly glimmering. I stopped at the rest area, and sought help.

“Sumpin’s wrong wit your oil pump. Dere’s oil in dere, kind of mucky, but you got no oil pressure. You need to stop and get it fixed.”

“Can you fix it?”

“Dis is just a gas stop. We do tires and simple stuff. You need a real shop. You go slow, you might make it.”

I got off 95, and went up Route 40 at 30 miles an hour. The engine failed about Elkton. I made it to a car dealership, where the mechanic told me that some kind of white gunk had plugged the screen on the oil intake. He had never seen anything like it.

They did sell me a car, however.

So I compromised. I buy this stuff, but never have had the courage to put it in the engine again. I have quite a lot of it.

But after inspection, the local arts council decided it wasn’t really art.

I took it to the swap shop.

Good luck!

Amateur Radio Emergency Service Transitioning to New Online Reporting System

The Amateur Radio Emergency Service (ARES) will phase out the traditional ARES report forms later this year in favor of an online system called *ARES Connect*, a volunteer management, communications, and reporting system. The new system will allow



information to be logged by ARES members and managed through the Field Organization. The advent of *ARES Connect* was among other highlights in “**The Amateur Radio Emergency Service (ARES) 2017 Annual Report**,” released this week.

“*ARES Connect* is a volunteer management system that covers event signup, reporting, and roster management,” ARRL Emergency Preparedness Manager Mike Corey, K1IU, said. “It does not change how ARES operates when serving a partner entity; it is simply a system that will make managing volunteers and events easier.” Beta testing of *ARES Connect* will begin in March. ARES made changes to its report forms last year to make it easier to process information at ARRL Headquarters and to standardize the format for all forms. ARES Monthly Reports have been posted to the ARRL website, providing regular information on Amateur Radio public service communication activity, the report noted.

According to the 2017 report, ARES membership stands at 31,332, up by nearly 13% from 2016. The number of emergency operations events reported was up by 665 from the previous year, with 1,913 reported in 2017. The top three states in terms of ARES membership in 2017 were California (2,265), Texas (1,930), and Ohio (1,858).



Reported ARES events amounted to 51,673 in 2017 — a 4% increase — accounting for 718,930 volunteer hours at a calculated value of more than \$17.3 million.

“There was a noticeable increase in reported activity during August through November,” the *ARES 2017 Annual Report* said. “During this period there was Amateur Radio response activity for hurricanes Harvey, Irma, and Maria; wildfires in the western states, and the total solar eclipse that occurred on August 21.”



CAPE ANN AMATEUR RADIO ASSOCIATION

6 Stanwood Street
Gloucester, MA 01930
978-282-7645

WWW.CAARA.NET

“Serving the community
for 45 years”

Repeaters on 145.130
224.900 & 443.700

March 2018

M	T	W	T	F	S	S
			1	2	3	4 Breakfast 9-11am CAARA Net 9pm
5	6 OPEN HOUSE 5-9pm	7	8	9	10 BOD 11am MEMBER LUNCH MEETING NOON	11 CAARA Net 9pm
12	13 OPEN HOUSE 5-9pm	14	15	16	17	18 Breakfast 9-11am CAARA Net 9pm
19	20 OPEN HOUSE 5-9pm	21	22	23	24	25 CAARA Net 9pm
26	27 OPEN HOUSE 5-9pm	28	29	30	31	

THE CLUB BREAKFAST ON SUNDAY, February 4, 2018



This breakfast benefited the Scholarship Fund and we had a good turnout. I did not get photos of all who attended as I was helping in the kitchen with Bill- W1WMM, our cook. Most importantl, it was nice to see the club alive again on Sunday mornings. Larry and Milly were upstairs working on the remote station and making a quick repair to the Echolink station.

Chris, Jake, and David were contemplating repairs to the front storm door by adding a safety chain to prevent the door from flying off the hinges...the beauty of living by the ocean! Gardi and Chris were doing the preliminary planning for a new road race through the Dogtown woods. Tony and I were talking about the best antennas to put up at our qth....that could be a long discussion. Dennis heard our call about breakfast at the club on the repeater and scooted over from Rockport.

3Y0Z Bouvet Island DXpedition Aborted over Safety Concerns

In a huge disappointment for the DX community and the members of the 3Y0Z Bouvet Island team, the DXpedition's leaders announced at 2000 UTC today (February 3) that a decision had been made to abort the DXpedition and head back to Chile.

“During the last 72 hours, we continued to experience the high winds, low clouds, fog and rough seas that have prevented helicopter operations since our arrival at Bouvet,” said an announcement on the 3Y0Z Bouvet Island website. “No improvement was predicted in the weather forecast for the next 4 days. Then, last night, an issue developed in one of the ship’s engines. This morning, the captain of the vessel declared it unsafe to continue with our project and aborted the DXpedition. We are now on our long voyage back to Punta Arenas. As you might imagine, the team is deeply disappointed, but safe. There is already talk about rescheduling the DXpedition.”

Bouvet Island currently is the third most-wanted DXCC entity, behind Kosovo and North Korea. The 3Y0Z DXpedition, comprised of top operators with considerable DXpedition experience, has been in the planning stages for 2 years and had attracted contributions from clubs and individuals around the world.

A dependency of Norway, Bouvet is a subantarctic island in the South Atlantic. The last Bouvet activation was 3Y0E, during a scientific expedition over the winter of 2007-2008.

CAARA HISTORY



Dave- N1CDL sent me this old photo. You probably knew that the CAARA clubhouse used to be a Gloucester fire station. It looks like a second floor was added at some point in time. Anyone know the history?

The Great Mini-Tesla Project

by Jon- KITP

I have two grand-kids, twelve year old twins, that I have been trying to get involved in electronics and maybe even ham radio. I figure this will be easy, a thirty minute project that will dazzle them! I printed out the schematic below and begin to gather the parts....

Day 1: I go shopping at the famous CAARA “parts closet”. I find a roll of enameled magnet wire in the basement, an LED, and a whole box of transistors marked 2n222a **equivalent** and some 22k resistors....I have everything else I need in my “basement laboratory”.

Day 2: I sit down and wind 500 turns of magnet wire on an old 1 inch diameter PVC pipe scrap while watching a tv show with the y!l, Dawn....who looks at me and gives that strange “what the hell is he doing now” look. Easy, I finish it up by wrapping the ends with electrical tape to keep it from un-winding.

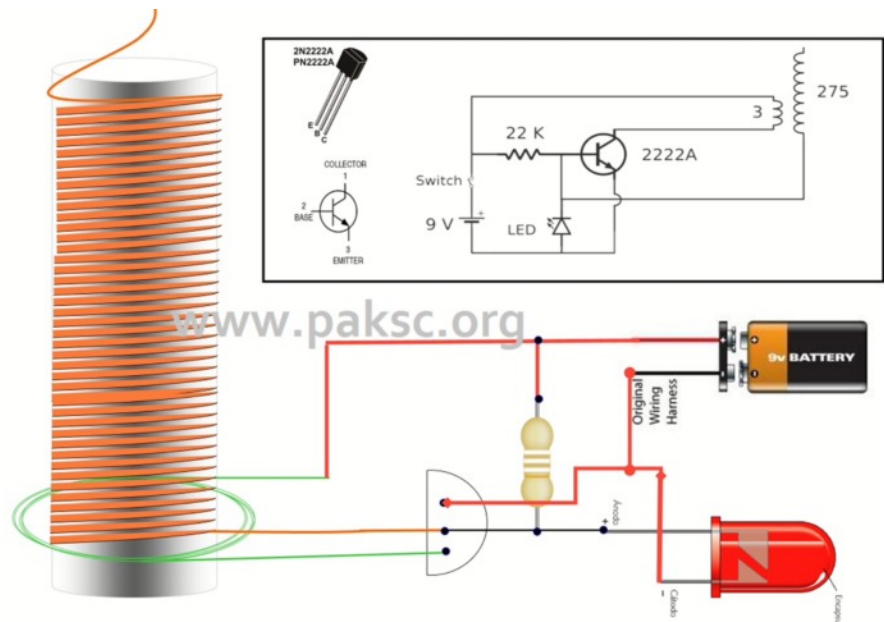
Day 3: I cut a piece of pine to mount the parts and prepare to hot glue the coil to the board. It's show time, time to wire this bad boy up...1500 volts of pulsing plasma power...capable of lighting up nearby bulbs and neon lights...they boys are going to love this, me too.

Turn on the glue gun and I find I have no glue sticks. Of course I do but I have no idea where anything is since the move to the new house. I hop in the truck and head out to ACE hardware.

One hour later the coil is glued to the board. I decide to mount all the parts on the board with hot glue and solder them together and eliminate a circuit board. One hour later all is soldered together and I fire up the circuit with a brand new 9 volt battery that only took me 30 minutes to find in a closet.

Moment of truth.....NOTHING....I touch the transistor, its smoking hot. I cannot read the numbers off the transistor and spend 15 minutes finding a magnifying glass. I spend the next 15 minutes on the Internet looking for the data sheet for the supposed “equivalent” transistor only to find it is not only not “equivalent”, it is a PNP not an NPN transistor as needed.

I spend the next 30 minutes on Ebay finding 2N222a transistors and buy 50 of them for \$3.50 SHIPPED. Project on hold for three days until they arrive in the mail.



Day 7: I am well rested, the mail has arrived, and with the new transistors in hand, I head to the basement laboratory where it is a crisp 50 degrees. I take my time and wire the circuit up, power it up, and NOTHING! Double check the wiring.....NOTHING! Freezing and discouraged, I head upstairs for the night.

Day 8: I had nightmares of the mini-tesla coil all night and rewired it in my head a dozen times...I clearly had memorized the circuit. I decided to wire the components on a little test board I use for trying little circuits out on. I use a new transistor, resistor, and LED...noting the anode and cathode as I wire it up. I add wires to lengthen the coil windings to reach the test board....I power it up and the LED lights up.....I place the bulb near the coil.....and bonanza! The bulb lights! I stop right there, everything works and I am not messing with it anymore today!

Someday in the near future: I am going to hot glue the actual components to the pine board and solder it all up and eliminate the test board. I will make two packages of the needed parts and the schematic and bring it over to the kids and hopefully give them a unique hands on experience with components.

Lesson for me: ***Don't think you can zip stuff together anymore in 30 minutes.....it looked so simple on YouTube, he made it in 4 minutes. I figure I have 10 hours time invested in this project not mentioning the loss of sleep...***



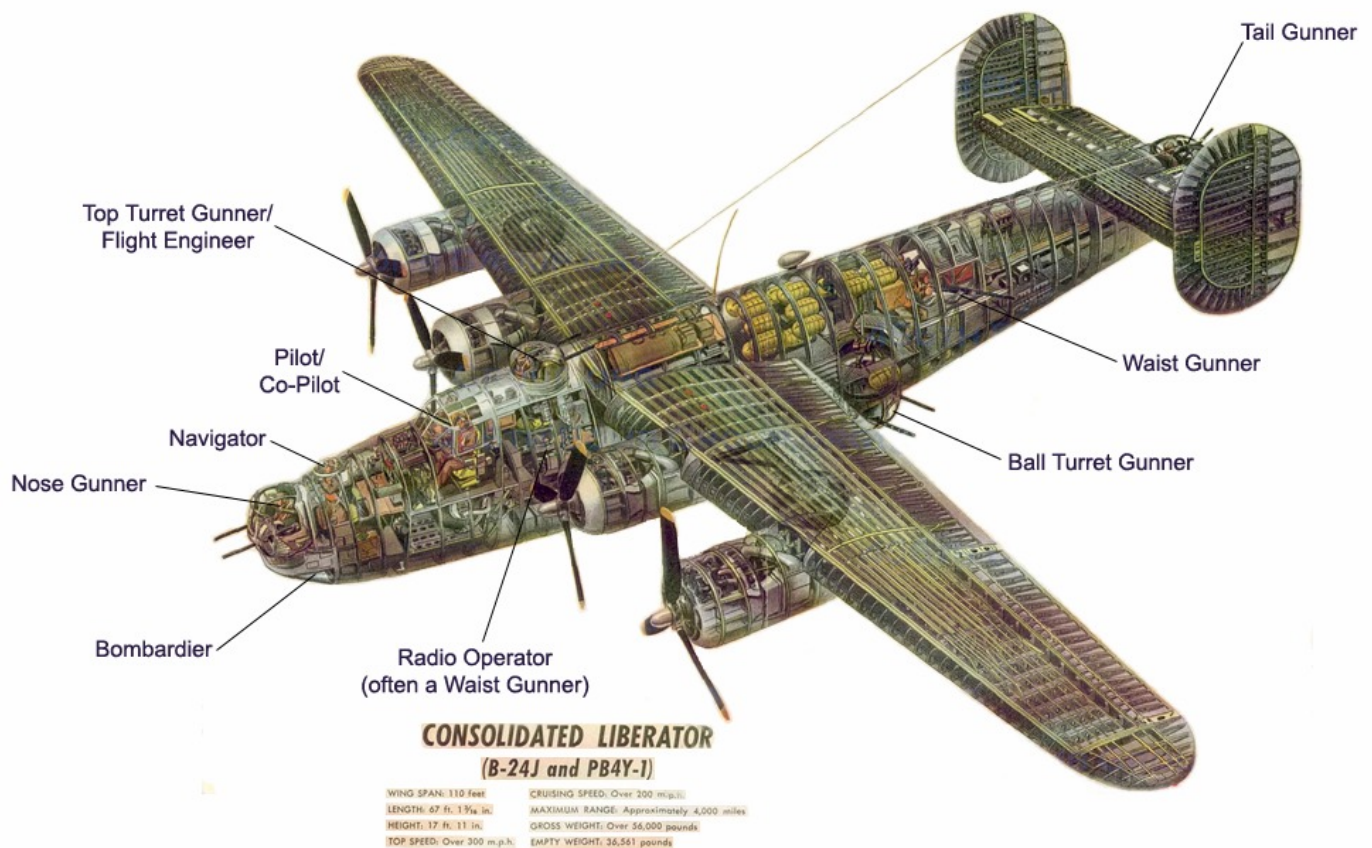
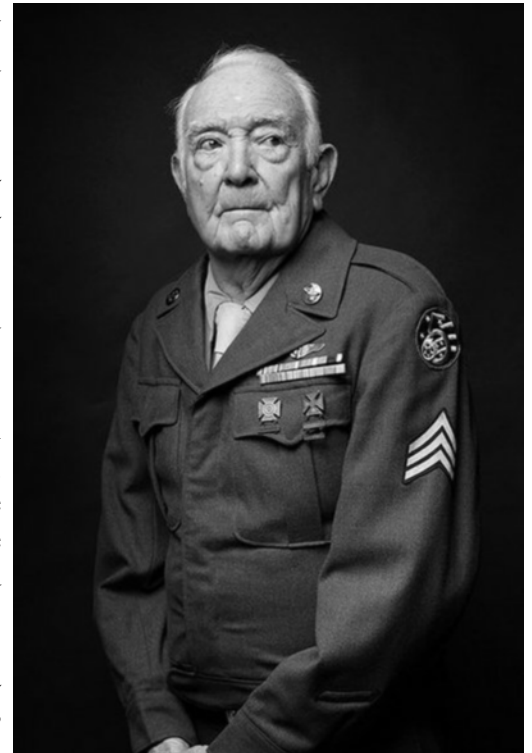
Robert McKechnie- W1MVM SK, Gloucester | US Army Air Corps, Sergeant/Tail Gunner

Long time CAARA member Bob McKechnie W1MVM passed away on Thursday morning January 25, 2018 at Seacoast Nursing and Rehabilitation Center in Gloucester.

He was active in CAARA as a skilled Extra Class Operator and was a regular with the Sunday Night Net until very recently. Bob was also a regular at the Rose Baker Senior Center in Gloucester. McKechnie was a WWII Veteran who joined up just as he graduated from GHS. He was stationed in Biloxi, Miss., for training in the Air Corp, where he found himself placed in the tail gunner's seat on B-24 Liberator bombers.

He and his crew were flown from Boise, Idaho, to Sacramento, to Pearl Harbor, Canton Island (in the Phoenix Islands), and then to New Guinea, where an acute bout of appendicitis sidelined him for a few weeks. He eventually caught up with his unit at Ie Shima, off Okinawa. By the time he and his unit were established, the atomic bombs had been dropped on Hiroshima and Nagasaki, which ended US combat missions.

He returned to Gloucester to work for North East Telephone as a lineman, married Catherine Friend, and had three boys. The couple was married 64 years before Catherine died in 2013.



ENCOM DRILL: Saturday, February 10th at CAARA CLUB



Gardi- KA1BTK, our newly appointed ARRL ARES liaison, held a drill at the club. ARES members Jim and Matt participated in the drill explained in the letter below.

It was nice to have the club being used during a simulated emergency drill. They are planning on holding an emergency drill again at the club in the near future regarding an earthquake that rocks Cape Ann!

All club members are welcome at these drills and we are looking for volunteers to man the group.

Hello everyone!

This Saturday 10:00 am – 12:00 noon EMA ARES will be having an operational exercise simulating a severe ice storm hitting Cape Cod. This will be a Cape Cod and Islands centric exercise, however the entire section will be participating and practicing various communications skills. Field sites will be setting up around 9 am.

Please read the entire document as it contains important information about how the exercise will be conducted. There is an addendum at the end for stations operating on the main land and at the end is an ICS-205 with the frequencies that will be in play for the exercise.

A quick summary of the goals for this exercise are practicing and testing communications on and off the Cape via HF and VHF, collection of weather and infrastructure status back to a central location off the Cape, practice operating on a net, and moving traffic between nets.

We look forward to any and all stations, whether ARES affiliated or not, to get onto our nets and help relay traffic, especially on the HF bands which have had very poor location propagation recently.

A sample of locations with official ARES stations that will be on the air for this drill:

- Sandwich
- Falmouth
- Acushnet
- Walpole
- Marlborough
- Stow
- Gloucester

And again to see what frequencies we will be using consult the ICS-205 at the end of the linked PDF document above.

For any questions about the exercise please contact Frank, WQ1O, wq1o@comcast.net for Cape and the Islands items, and contact Marek, KB1NCG, kb1ncg@arrl.net for the rest of the section.

Marek, KB1NCG
Eastern MA ARES SEC

CLUB MEMBER MEETING AND LUNCH ON SATURDAY, FEBRUARY 10 A HIT!

The Board held their monthly meeting at 11am followed by the lunch member meeting at noon. We had about 20 members and non-members attending for a delicious homemade spaghetti and meatball dinner, garlic bread, with homemade cookies and brownies. Bill- W1WMM did a superb job with preparing the meal and Dave- N1CDL with the cleanup duties, the “dynamic duo” get it again.



Above left: Linda, Curtis, Gardi, Tony, and Ernst at the Board Meeting. Above right: Ernst working on the second floor with the new computer and printer setup.

The next member lunch is Saturday, March 10 at noon and features an authentic Irish Boiled Dinner with a pork shoulder, carrots, potato, and cabbage.



Mr. Mike, one of the hams who runs the famous NEAFEST HAMFEST in NH twice a year, came to the member meeting, enjoyed lunch, and made an announcement regarding a new activity being offered at the spring hamfest.

They are creating a new workshop aimed at young kids, hoping to develop a curriculum that will get them involved in ham radio and technology. I look forward to seeing what they come up with, it is in the planning stages right now.



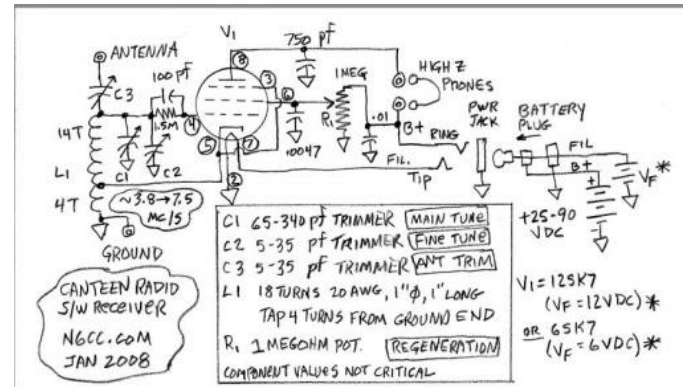
Photo on the left:

Chris- K1TAT, Hank- W4RIG, and Dave- N1CDL at the Board Meeting.

It was nice to see Hank, our club treasurer, back in action after having a total knee replacement.

“Canteen Radio” that was used by US Army personnel in the Japanese POW camp at Cabanatuan in the Philippines during WWII.

An operating display at the Veterans Day 2017 Open House at the Veterans Memorial



There is speculation that the radio was actually originally built on Corregidor before its capture (and subsequent Bataan death march to Cabanatuan) but was later modified in the POW camp for a 6J7 tube after the original 12SK7 tube burned out as described above. The 12SK7 (VT-131) pentode tube would have been a logical choice at a forward Army base in WWII. That tube would have been available in quantity as it is used in the Army aircraft Command Set receivers and others during that time. It's also obviously suitable in a single-tube radio design. Considering the parts requirements, the Corregidor assembly scenario rings true to me – but no firm record of that.

Its discovery at Lieutenant Gibson's bunk would certainly have resulted in his summary murder, at a minimum. But it escaped discovery by the Japanese guards until the camp was assaulted and liberated on 30 JAN, 1945. Assault personnel were from Company's C and F, 6th Ranger Battalion, Alamo scouts and Filipino guerillas. The original radio apparently disappeared into The Fog of War at that time.

Using a radio like this in a POW camp also presents a “technical” discovery risk – the radio actually radiates a signal on the frequency to which it is tuned. That is inherent in a simple regenerative receiver circuit. If the POW camp had a shortwave communications receiver in their HQ (they likely did), any Japanese radio operator also listening to any of these radio stations would have heard the signal from the canteen radio on the same frequency. Any radio operator worthy of the name would immediately recognize it and realize that’s what they were hearing. VERY risky.

This replica is made from primarily WWII vintage electronic parts and includes 2 interchangeable tuning coils wound on 1 inch diameter bamboo forms. One is for SW broadcasts, the other for MF broadcast band use; the turns are held somewhat in place with pine pitch. The four D cell filament batteries are appropriately concealed inside a piece of bamboo tube. (Mine uses a 6SK7 because I couldn't fit 8 D Cells inside the bamboo tube to power the 12 volt filaments of a 12SK7. Both tubes have otherwise identical performance and connections.) The 100 pf grid-leak capacitor is actually two 50 pf mica's in parallel.

Theirs was a “courage and ingenuity” type radio.

DXCC Most Wanted

The 'DXCC Most Wanted' entities list has been updated on ClubLog as of February 7th.

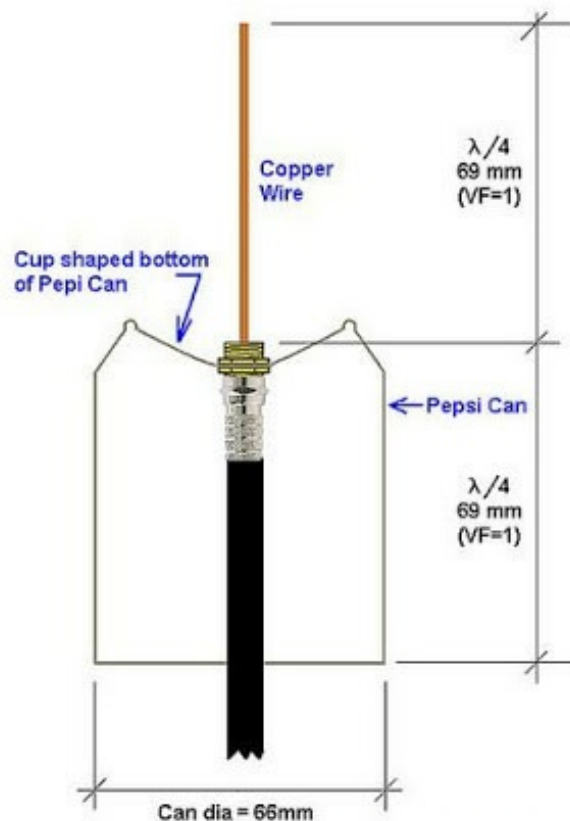
The list contain 340 entities and the top 10 entities seems to have changed with the addition of Kosovo:

1. P5 DPRK (North Korea)
2. 3Y/B Bouvet Island
3. FT5/W Crozet Island
4. Z6 Republic of Kosovo
5. CE0X San Felix Islands
6. KH1 Baker Howland Islands
7. BS7H Scarborough Reef
8. BV9P Pratas Island
9. KH7K Kure Island
10. KH3 Johnston Island



The complete "DXCC Most Wanted" entities list is available at: <https://secure.clublog.org/mostwanted.php>

Cantenna



Coketenna



Invent....you can make an antenna for ufh/vhf out of most anything....

CAARA SINK REPAIR.....We don't need no stinking plumber here, we got Chris....



The second floor sink drain literally corroded away from the cast iron vent stack on the second floor of the club a month ago and began to leak thru the ceiling of the first floor.

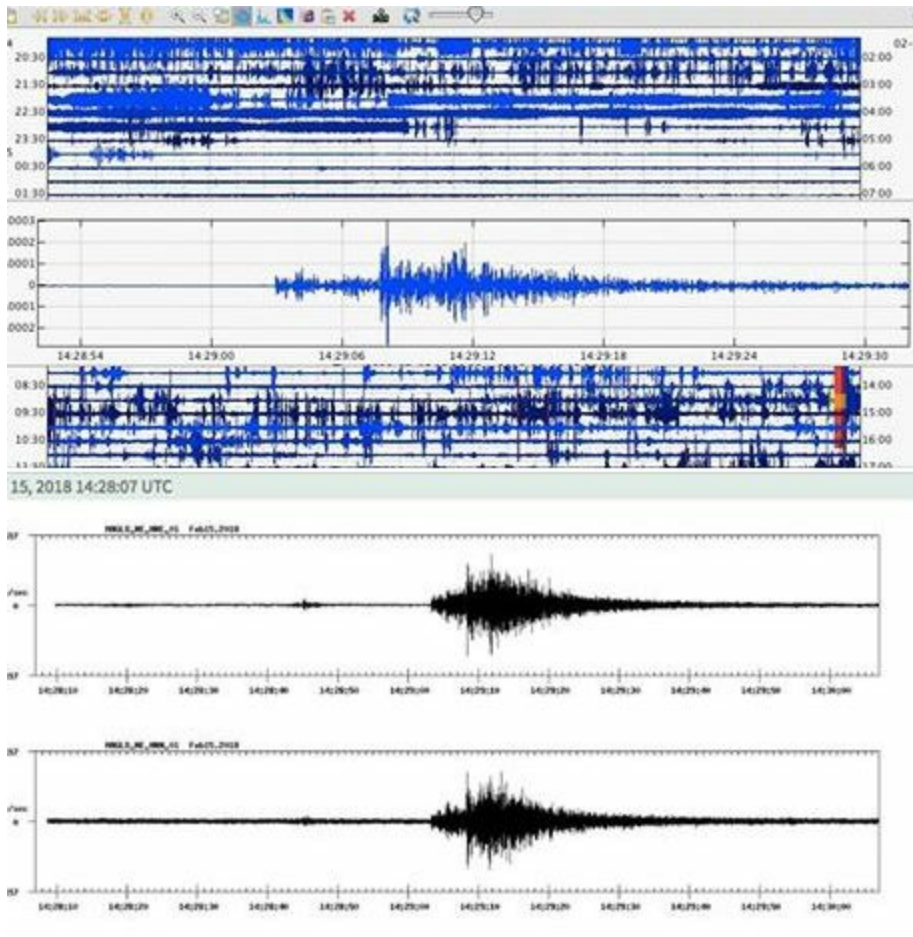
We surveyed the situation and had two options, call a plumber and pay big time or try to fix it our self. I called my son, who is a master plumber, and sent him a picture of our mess. We had to remove plywood access covers to find the leak....luckily the hot water pipe had been repaired before and the dry wall had to be removed. Instead of dry walling the wall back in, someone just put up some plywood removable plates. Lucky for us!

My son told me if a new pipe nipple could not be screwed into the corroded stack threads, a plumber would have to cut a section out of the stack and replace it to repair it...yikes....money....tearing the wall apart even more....did I say money!

We scoped things out and made the attempt to repair it ourselves using a PVC nipple which we felt might work. I picked up the parts and Chris- K1TAT, our new resident plumber, made the repair. The existing metal pipe was replaced in PVC and yes, the PVC nipple screwed into the old cast iron stack and was secured with plumbing goop that would harden and seal any potential leak.

Our resident photographer, Tiny-N1JEI, captured the moment for eternity and for you to see. Many thanks to all involved, especially the anonymous donor (who is moving to NH soon) who paid for all the parts. I think it is time to renovate that bathroom with some TLC and new paint....volunteers?

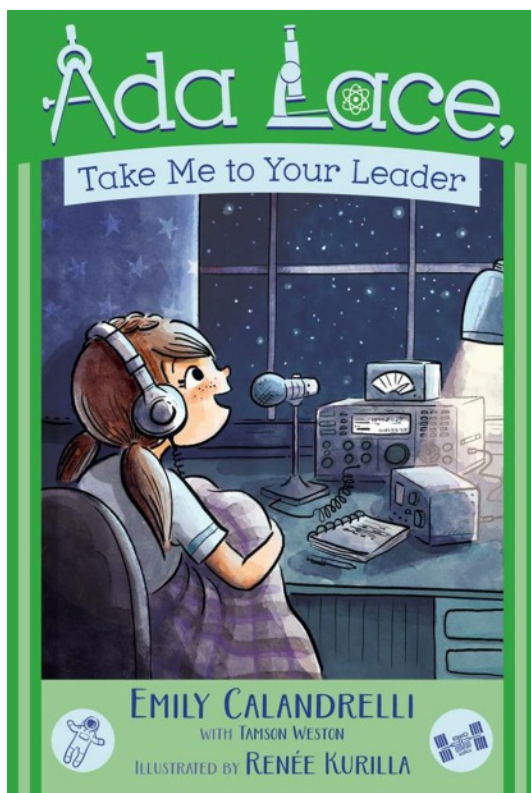
EARTHQUAKE ACTIVITY ON CAPE ANN *Stan Stone- W4HIX*



Here are the helicorder plots from my seismometer (Raspberry Shake—I bet you didn't know that I had my own seismometer, huh?) and the USGS NetQuakes plot from the seismometer at CAARA.

My seismometer gets a ton of environmental vibrations (noise) of almost anything going on in the house, but fortunately, things were quiet during the quake.

I sent it to a professor I met from Boston College (John Ebel) who runs the Weston Observatory. He confirmed it and said it looked pretty good. YES!



Emily Calandrelli's latest book aimed at young people Ada Lace, Take Me to Your Leader, features amateur radio

Ada is an 8-year-old with a knack for science, mathematics, and solving mysteries with technology. Her latest project is to fix up a ham radio, something that she could use to contact people on this planet...and beyond.

The book will be available on May 1 and can be pre-ordered on Amazon at <http://amzn.to/2DbKt9L>

Sisterhood of Amateur Radio supports Girl Scouts in obtaining Radio Wireless Patch

The Sisterhood of Amateur Radio (SOAR), in conjunction with the Girl Scout Council (GS) of Southern Nevada hosted a 'Radio and Wireless Tech Field Day' on February 3, 2018 in Las Vegas, NV. Over 60 girls and their adult chaperones participated in the event held at the GS Council Facility during a 5-hour period.

The American Radio Relay League (ARRL) has developed a special Radio and Wireless Technology Patch Program for Girl Scouts. The Radio and Wireless Technology Patch Program will inspire girls to learn fundamentals of radio communication and wireless technology and to take action in their communities to apply communications to connect people, provide safety, and explore related careers. Girl Scouts had the opportunity to learn about Amateur Radio and do hands-on activities with Amateur Radio.

They also learned about emergency and public service communications, and explored ways wireless technologies are used in everyday life and in the workplace.

The SOAR women were excited to share what it means to be an amateur radio operator and to show the girls that they can communicate around the world using amateur radio as part of the Girl Scout's program to kindle an interest in Science, Technology, Engineering, and Math (STEM) subjects and careers. "As a girl-led and girl-focused organization, Girl Scouts of Southern Nevada understands the importance of providing science and engineering educational programming to girls of all ages, said Linda Bridges, Chief of Communications for Girl Scouts of Southern Nevada. "By partnering with SOAR, we look forward to inspiring all Girl Scouts to pursue a lifelong love of communication and global goodwill."

Highlights of the event were spelling out their name in Morse Code and hearing it via a code practice oscillator, learning about antenna directivity and participating in a T-Hunt, and actually talking on the radio third party via HF, UHF/VHF and through "modern" means such as EchoLink.

Todd Wilson, WH6DWF, coordinated the *ISLANDS* Conference Server, IRLP 9256, the StarLink System Hub 357087, and DODROPIN 355800 to serve as a demonstration of ECHOLINK, IRLP and AllStar for check-ins in order to display amateur radio using a tablet or a smart phone in addition to traditional radio equipment.

Wilson took "net control" and was able to coordinate the links for an orderly demonstration of the system. Through his efforts, operators from Saudi Arabia, United Kingdom, Maritime and 18-wheel Mobile as well as many states, (e.g., HI, NY, FL, OR, and WA) had short QSO's with the girls.

The Nevada Section Manager, John Bigley, N7UR, spoke to those connected via EchoLink stating, "The Nevada Section sincerely appreciates the contribution of all the participants who took time out of their day to speak to the girls to demonstrate these young girls what amateur radio can do to connect people around the world." Bigley went on to express his sincere appreciation of the ARRL Pacific Division's support demonstrating that the amateur radio community is supportive of each other to ensure success and longevity of the hobby.

ARRL Receives Byrd Antarctic Expedition Morse Key, Historical Materials

ARRL has received from Lynn Burlingame, N7CFO, the donation of a Kilbourne & Clark Morse key that the late Howard Mason (1ID, 7BU, and K7QB) used to let the world know that Rear Admiral Richard Byrd and his crew had overflowed the South Pole for the first time during Byrd's 1928 – 1930 Antarctic expedition. Mason and his 80 colleagues were awarded Congressional Gold Medals for their efforts in establishing the Antarctic outpost "Little America," the first of a series of bases bearing that name.

Mason was a lifelong radio amateur from Seattle who was an active ARRL National Traffic System participant

and manager. In 1923, he relocated to Connecticut to serve as an editor of the ARRL's journal, QST. Mason's first polar experience was as a radio operator with the Wilkins-Detroit News Arctic expedition that traversed the North Pole by air in 1928. This led to his selection by Byrd to be a radio engineer with his first Antarctic expedition. Mason was co-operator of Little America's base radio station, WFA, used to keep in contact with the rest of the world.

Mason continued to use the key in his ensuing and varied endeavors. Prior to his death in 1996, he gave the key to Burlingame of Bellevue,

Washington, a collector and biographer who generously donated it to the ARRL Heritage Museum. The museum plans to display the key as part of an exhibition tentatively scheduled to open on April 15. The exhibition also will include a large wooden key, engraved with "WFA" and bearing the signatures of some expedition members.

Also on display will be a first edition of Admiral Byrd's book *Little America: Aerial Exploration in the Antarctic*, the *Flight to the South Pole* and an album of contemporary newspaper clippings, both part of the Burlingame donation. A complete narrative will be posted to the Heritage Museum Section of the ARRL website.



The key and the Little America radio operators can be seen in action in an original film available on YouTube, which offers a first

Ham radios offered lifeline to Puerto Rico after Maria

WESH News reports on the Orlando HamCation and the key role amateur radio played in the aftermath of hurricane Maria

Thousands of people flocked to a huge electronics show at the Central Florida Fairgrounds this weekend. Ham radio hobbyists and amateurs gathered in the thousands for the 72nd edition of the Orlando "HamCation."

Ham radio operators use a wide range of frequencies and technologies to communicate around the world and locally.

For decades, ham radio operators have been vital during disasters, when all other communications fail.

How to handle disasters was one of the topics that radio operators discussed. Those at the event heard from the man who led the amateur radio effort to help Puerto Rico immediately after Hurricane Maria in September.

"During that time we had 100 percent loss of power and 98 percent loss of all communication on the island," Oscar Resto, Puerto Rico ham radio manager, said.

Amateur radio was an important lifeline for the government, emergency workers and citizens, who had to rely on it when nothing else worked.

Read the full WESH story at

<http://www.wesh.com/article/orlando-hamcation-event-ham-radios-offered-lifeline-to-puerto-rico-after-maria/17014915>

CAARA PUBLIC SERVICE

Here's a schedule of our 2018 YUKAN races with each date and location:

Fool's Dual Half Marathon & 5K (4/8/18) Gloucester, 9am start

Fast Half Marathon (5/12/18) Hamilton, 9am start

Twin Lobster Half Marathon & 1M (6/3/18) Gloucester, 8am start

Parker River Half Marathon (7/8/18) Newbury, 8am start

TripleThreat Half Marathon, 5K & 1M (8/5/18) Rockport, 8am start

Half Marathon-by-the-Sea (9/23/18) Manchester-by-the-Sea, 10am start

Ocean View Half Marathon & 5K (11/4/18) Ipswich, 8:30am start

Happy Holidays Half MerryThon & 2.62M (12/2/18) Gloucester, 9am start

NEW: DOGTOWN RACE 5 MILE IN THE WOODS May 20- 9am- details soon....



Why should you participate in race events?

It helps the club financially, we receive a donation for each race. You are using amateur radio to provide a needed public service to ensure the safety and smooth running of a public event in local communities.

I would but I do not have a radio.

No excuse, we have loaner radio's available with a mag mount that will work in your car just by just plugging it into the cigarette lighter socket. We have loaner hand held radios as well!

I don't have transportation.

No excuse, we will pick you up and drop you off at your house.

I do not have the time to spare for a whole race.

Well, you can commit to a time slot, for just two hours. We will bend over backwards to get you to participate.