



CAARA Newsletter



AN ARRL AFFILIATED CLUB

AUGUST ISSUE- 2013



President's Desk

by Stan-W4HIX

July 2013

As I struggle with the logging software for Field Day (N1MM) to pull out all of the QSOs logged, I realize how important it is to have as many people involved in the Field Day operation as possible. This year we were right on the cusp of executing our plan of having all of the stations operational upstairs. This means that all of the radios and power supplies (and cabling) must be operational. After that comes the logging computers and their interface to the radios. The next thing is that the proper software and configuration must be loaded and that all of the computers communicate with the logging server. The next piece is checking of all coax feedlines. At this point, we still haven't done any work on the antennas.

I believe next year, our stations will be fully checked out months in advance. This will help in getting started at contest start. Also next year, I would like to see **many more operators**—and all of your CW folks, let's see what you're really made of. The digital station will also hold up its end of the QSO mix.

CAARA has two major projects going on—one is the purchase of the building. This is slowly moving through the City government with good support from Mayor Kirk and Councilwoman Hardy. With a little luck, it will come up to the Planning and Development committee in August where I will make a presentation. The second issue is some long delayed maintenance—painting of the building. This is a tough issue, because more than likely we will have to re-shingle two sides of the building and have the building professionally painted. At this time, we do not believe there is

sufficient available labor hours in the club to do the job ourselves. This means fund raising. The board of directors is doing its best to spread the fundraising around, but it is important that club members make contributions—more on this soon.

One last thought—think about what CAARA would be without the building—I believe it would be a vastly different organization.

73 de Stan, W4HIX

Clerk's Corner

by Dean-KB1PGH



The first order of business is the announcing of the clubs ANNUAL MEETING ! This years Annual meeting will be taking place on Wednesday, September 18th at 7:30 PM at the CAARA Clubhouse on 6 Stanwood Street in Gloucester. The Board of Directors strongly encourages all members to attend. During the Annual Meeting our Club President, Stan Stone, will present his "State of the Club" address. After that the Treasurer will present the clubs financial "State of the Club". After that we will give the members the opportunity to discuss any issues that they wish to bring up. Then at the end we will have the club elections where the members nominate and elect, or re-elect new club officers and directors. By the way, if your going to attend the Annual meeting and your doing nothing why not take a good look through the club's Constitution on the clubs website at www.caara.net. I would highly recommend it so people don't look so lost through the process of how the elections go. Please take a look through the clubs policie's section as well. Moving on, here are the remaining dates for the monthly ARRL VE/FCC Amateur radio License testing sessions for 2013. All dates are the second sundays of each month: August 11th, September 8th, October 13th, November 10th and December 8th. All VE sessions start at 9:30 AM and end at noon and all exam sessions will be at
(continued page 3)

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

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

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Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Club Reporter

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Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz (PL 107.2) with antennas located on the ATT 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 (no PL) located at the CAARA Clubhouse with a very limited range. The former W1RK 443.700 (no PL) repeater with antenna at the CAARA Clubhouse in Gloucester, Massachusetts has a 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 features multiple HF station's with rotatable 10-20 meter beam, G5RV wire antenna, and 2 HF vertical antenna's along with a 2 meter packet station and multiple 2/220/440 MHz transceivers. CAARA also has an impressive collection of older tube radios.

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.

CLERK'S CORNER (cont. from page1)

the CAARA clubhouse. So does anyone want to run for the club clerk position come September? Anyone? Hello? The September newsletter edition will be my last "Clerks Column" but I will keep writing. As a ARRL Public Information Officer for Eastern MA I will begin a new column called "**The Information Desk**". I'll try to spread the word about all the aspects of amateur radio and how to spread the word to the public.

PRODUCT REVIEW: MFJ-561

You know what I was trying out the MFJ-561 again (the little mini paddle) and though it will likely get tiring holding it in place over a long period of operating, it's really not a bad little key for a dirt cheap very basic thing. It's only about an inch and 3/4 wide but it keys smooth as far as I can tell although it's not as light a touch as keys like Bencher & Kent. It would be a good one for someone starting out who can't afford much. The only negative I can see if that over FD I couldn't hear it over the sounds of the radio. At home keying with my Ham Keyer I can hear it fine, ditto for my FT-817nd. You can buy the MFJ-561 already assembled for about \$24.00 or you can buy the MFJ-561K which is the kit for about \$19.00 and have a little practice putting it together and soldering. They come with an 1/8 inch plug rather than the 1/4 inch.

I've read the reviews and as usual many are good but some hate it. To each his own but I think it's fine and it makes me laugh at it's being so tiny. Funny thing is it has feet for paddles so I guess no matter what you do you'll have as they say "a fist like a foot."

Ruth WW1N



History This Week

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

Monday, 22 July, 2013

1775 Benjamin Franklin becomes first US Postmaster General

1866 Atlantic telegraph cable successfully laid (1,686 miles long)

1866 Metric system becomes a legal measurement system in US

1880 First commercial hydroelectric power plant begins, Grand Rapids, Mich.

1909 Orville Wright tests first US Army airplane, flying 1h12m

1914 Assassination of Austrian Archduke Franz Ferdinand and his wife. Precipitates WW I

1919 Treaty of Versailles ending WW I signed.

1944 First jet fighter used in combat (Messerschmitt 262)

1944 First British jet fighter used in combat (Gloster Meteor)

1983 Dick Smith VK2DIK, makes first solo helicopter flight around the world.



Corn by Dr. Curt Wright-AA3JE

There are real disadvantages in being an effete Eastern intellectual. Having spent most of my life in schools of one kind or another, it tends to convince you that you know what you are doing.

Fortunately, reality tends to cure that.

Last year, being a lover of corn on the cob, I planted corn. Now this would have been all right, if I had gone to the hardware store, bought a nice big packet of genetically modified seed, and planted the stuff like it said on the packet.

But.... I decided that I would plant "heritage" corn, bought from an obscure company in New Mexico, which was lovingly handed down from father to son, bred to be an honest, normal, corn that had not been "mucked" with. You know, the kind of stuff that Squanto, the Indian, planted. I had read an article in the Smithsonian, a nice one, describing the history of corn, and how it had been severely modified by the seed

companies. I was going to grow "natural" corn. Pure corn. The original stuff. Straight from the Indians. I searched and found a company that promised the good stuff, hand raised by laughing Native Americans. It was expensive, but would be worth it.

If you remember the story, I planted it, tended it, sprayed it to keep the corn ear worm at bay, and lost 99% of it to the birds, beasts and rodents of South End.

But I had lovingly saved the few ravaged ears, and stored them all winter, and planted them this spring with hopes of growing the survivors to my new, F1 generation, Rockport adapted, wholly natural corn. So I put up with the inevitable complaints:

"WHAT ARE YOU DOING NOW? IT LOOKS AWFUL OUT THERE! THE NEIGHBORS WALK BY AND GIGGLE! SOW SOME GRASS SEED FOR GOODNESS SAKE!"

I plowed it. I tilled it. I raked it, I pulled bushels of weeds out of it. I lovingly took the soil temperature, and planted my precious seeds 3 seed diameters beneath the soil.



"THE DOWNSTAIRS RUG IS RUINED. WIPE YOUR FEET! TAKE OFF THOSE MUCKY SHOES FOR GOODNESS SAKE!"

Then the June rains hit. It rained, and it rained, and it rained. We got 8 inches in two weeks, and the field was a soggy mess. The weeds loved it. They grew like crazy, but not one blade of corn (I know what corn looks like now).

Fortunately, I had a few seeds left. I went out, tilled, weeded, hoed, and raked, and then planted the second

batch of seeds. I did not need to water (in fact, I needed water wings the field was so damp), and I waited. And waited. And waited some more.

Nothing, except for a new crop of weeds.

Now this poses a dilemma. The normal, ordinary (and rational) thing to do would be to rototill the whole thing, plant a few packets of seed from the hardware store, and get set for the onset of the bugs.

At this point, the only thing growing in the garden was the asparagus (it gets to be six feet high, you know), and the onion

sets, which look lavish, but don't actually have any onion bulbs on them yet. The tomato plants, lovingly grown from seed are doing well, but corn? Not a blade of it.

At this point, "she who must be obeyed" made a suggestion.

"ARE YOU AN IDIOT? WHEN THE CORN COMES IN THE STORES ARE HIP DEEP IN IT FOR TWO TO THREE WEEKS. IT IS SO CHEAP THE BAGS COST MORE THAN THE CORN. I WILL BUY YOU ALL THE (EXPLETIVE) CORN YOU CAN EAT. PLANT SOME GRASS!"

She was right, of course, and it would make sense, except for the neighbors.

On one side there is the family with the 20 mature blueberry bushes making pies and cakes with their crop, and further down there is the family that looks like "Little House on the Prairie" with corn, beans, asparagus, pumpkins and cucumbers in abundance, and then there is me, the dork with the mud pit.

I thought about it. At least this year the bees are doing well, since I have left them alone. If I planted clover, I could say that it was intentional, done for the honey.

TOWER UP

By J. Pallazola, WB1CHJ

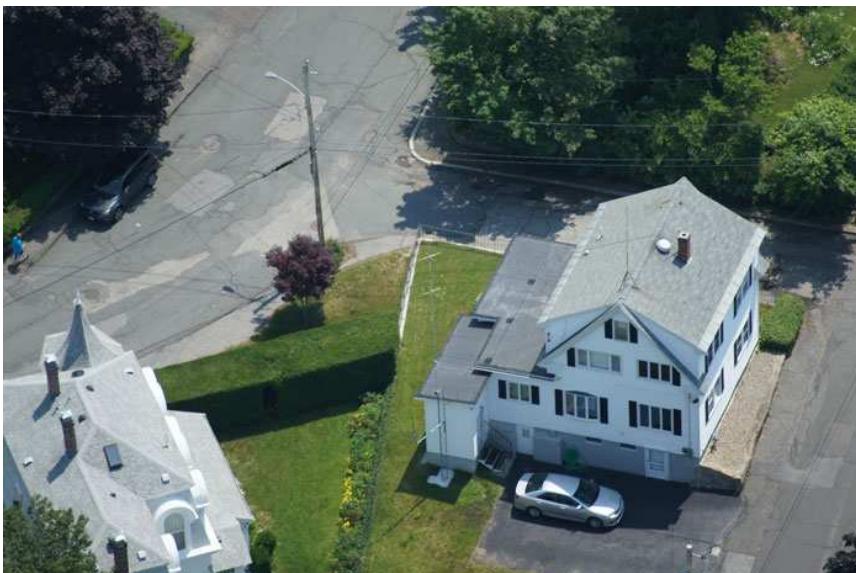
I was having Apple computer problems and Jon K1TP had helped me out in the past. Jon came to my QTH. Before we knew, we were talking about CAARA and ham radio.

I had been away from amateur radio for a few years, but, that afternoon K1TP gave me the ham bug again. After listening to the two meter band for a few months, in September, I decided I had to get back on the HF bands and work DX again. I called my antenna guru Tom, K0TB who has done all my antenna work and has given me advice since I became a ham in 1977. TB told me to get a light weight antenna because the mounts that hold the mast are over 30 years old and would not support heavy antennas. After some research, I decided to buy the 6.2 lbs Cushcraft MA6VA. After a year, the performance of the MA6VA went downhill. That's when I started toying with the idea of putting up a tower. Tom gave me all the do-s and don't-s of the tower project and we were off and running. Two days before Jon's knee surgery, K1TP delivered three ten foot sections of tower CARRA gave me. My cousin John, who isn't a ham, has helped me by being my hands around the shack. He worked taking rust off, welding weak spots and galvanizing the tower. John also dug a three ft hole for the concrete base.

After a number of emails with Tom, TB put a plan together that went into high gear when I decided on an antenna. I looked into the Comet 6 - 80

meters and Cushcraft R8 6 - 40 meters. Many moons ago, I had the R4 and worked 177 DX Countries. Going by the track record of the Cushcraft R series, I decided to go with the R8. The length of the R8 is 28.5 ft and

the weight is 23 lbs. The tower is actually shorter than the antenna at 20 ft. high. When the antenna came from HRO, Tom took it to his shop to start to assemble it. A few days later Tom brought the antenna to my QTH and placed it on two saw-horses and with help from Lucy continued to put the R8 together. On the bright sunshine morning of Sunday May 19, 2013 Rick, WZ1B, Ruth, WW1N and Pete, KL1LJO came to give Tom a hand putting the tower up. The next day, a truck pulled into my driveway and poured a three ft. concrete base. I want to thank Tom for all the time,



thought and labor he put into this project. Thanks to Ross, W1RAB for the concrete base and thanks to all the hams and non-hams who contributed to this project.



The CAARA “helping other hams” group at Joe’s house....Jon-K1TP and Ross-W1RAB missing from the photo.



Another CAARA ham gives his time to help Red Cross assist flood victims. Congrats to Ron-

The board voted to hold the Annual Member's Meeting on September, 18, instead of the traditional second Wednesday after Labor Day because of the schedule conflicts of some board members.



CAARA PUBLIC SERVICE PROVIDING COMMUNICATION FOR GLOUCESTER'S HORRIBLE PARADE JULY 4TH....BOB SPANKS-WA1UCG ABOVE IN BLUE SHIRT





CAARA PUBLIC SERVICE PROVIDING COMMUNICATIONS FOR A ROAD RACE ON CAPE ANN, Curt-AA3JE ABOVE IN HIS PICKUP





Forget your Raspberry Pi and all of those Android dongles: this quad-core, ARM-based box claims to offer up a PC-like experience for just \$100

The Utilite, made by Compulab, will pack either a single, dual or quad-core Freescale i.MX6 Cortex-A9 MPCore processor, up to 4GB of RAM, an mSATA SSD, WiFi b/g/n, Bluetooth 3.0, HDMI and DVI-D outputs, four USB 2.0 ports, a micro-USB connector, audio jacks, a micro-SD XD slot and two ultra-mini RS232 interfaces. Aaaaand breathe.

That's all squeezed into a frame 5.3 x 3.9 x 0.8 inches in size, that consumes 3-8W using a 10-16V supply. It even manages multi-stream 1080p H.264 on-chip decoding, so watching video should be mercifully reliable for a cheap computer. All in it sounds like a steal for the \$100 base model. It goes on sale next month. [Fanless Tech via Engadget]

Radio Ham's Kickstarter Plasma Thruster CubeSat

Radio amateurs Benjamin Longmier KF5KMP and James Cutler KF6RFX of the University of Michigan hope to raise \$200,000 on Kickstarter for a CubeSat propulsion project

The CubeSat Ambipolar Thruster (CAT) is a new plasma propulsion system which will push small spacecraft like CubeSats around in orbit or far beyond the Earth. They aim to use the CAT plasma thruster to propel a 5kg satellite into deep space at 1/1000th the cost of previous missions.

Just like a normal rocket that produces thrust from the burning and expansion of hot gases, CAT produces thrust from the expansion of a super-heated 350,000 °C plasma stream. Plasma is an ionized gas that can be accelerated to produce thrust ($F=ma$). The force generated by this thruster will be very low (milli-newtons) but very efficient. The engine will be turned on for long durations, accelerating the spacecraft to much higher velocities than a typical chemical rocket.

First, the propellant will be injected from its storage container into the plasma discharge chamber, a quartz bottle that distributes the gas and contains the plasma. The gas is turned into a plasma by a radio frequency antenna that surrounds the chamber and launches a plasma wave known as a "helicon." The plasma is then launched out of the quartz bottle and guided by magnetic fields from extremely powerful permanent magnets. As the plasma escapes the CAT engine, this causes an equal and opposite thrust, pushing the satellite in the opposite direction. Unlike conventional rockets, almost any substance can be used as propellant for CAT – even liquid metals or water vapor!

Find out more about the project and watch the video on the Kickstarter site.

CAT: A Thruster for Interplanetary CubeSats <http://www.kickstarter.com/projects/597141632/cat-a-thruster-for-interplanetary-cubesats>

ARRL fights Ham Radio encryption

Radio amateurs are currently permitted to encrypt control links but the ARRL is fighting proposals to permit the encryption of emergency communications traffic

The ARRL is calling on the FCC to deny a Petition for Rule Making (RM-11699) seeking to permit the encryption of certain amateur communications during emergency operations or related training exercises. Don Rolph, AB1PH, of E Walpole, Massachusetts, petitioned the Commission in March to suggest an additional exception to §97.113, which currently prohibits “messages encoded for the purpose of obscuring their meaning.”

“While Mr Rolph has concisely stated his argument, it is ARRL’s considered view that there is no factual or legal basis for the assumption that encryption of transmissions...is necessary in order to continue and enhance the utility of Amateur Radio emergency and disaster relief communications,” the League said in its comments, filed today with the FCC. The ARRL also turned away Rolph’s assertion that the current prohibition in §97.113 “has impacted the relationship of Amateur Radio volunteers and served agencies and significantly limited the effectiveness of amateurs in supporting emergency communications.” The League said it’s unaware of any evidence that served agencies have been reluctant to utilize Amateur Radio as part of their emergency or disaster relief communications plans because of the encryption restrictions in Part 97. The Amateur Service rule is based on a similar prohibition in international telecommunication law, the ARRL noted.

Read the full ARRL story at

<http://www.arrl.org/news/arrl-urges-denial-of-petition-to-permit-encryption-of-some-emergency-communications>

Royal Radio Hams

A website lists those members of Royal families that it believes may have held amateur radio callsigns

The page at <http://highfields-arc.co.uk/call/royalty.htm> contains a number of Royals said to have held amateur callsigns although no indication is given as to whether the Royals concerned actually had to pass any exams to get the callsign. The possible lack of any amateur exams never seemed to bother those amateurs who eagerly queued up at the chance to talk to Royalty and get a Royal QSL card.

It is understood that when one Royal visited the UK he applied for a reciprocal amateur radio licence, however, since he had not taken any relevant exams the UK regulator wouldn't issue him with an HF licence and instead, as a diplomatic courtesy, gave him a callsign limited to operation on VHF and above.

However, identifying which members of Royal Families have had amateur radio callsigns can be fraught with hazard and doubt must be cast on one of those mentioned on this list and indeed on other lists of famous hams that are available on the web.

The list attributes several callsigns to Prince Al-Walid bin Talal bin Abdul Aziz Al Saud (named by Forbes as the world's 26th richest person, something which he very strongly disputes). The first is HZ1TA, however, a casual look through the web reveals a QSL card from a Prince Talal Al Saud HZ1TA dated 1951, over 62 years ago. Apart from the difference in names the picture of Prince Al-Walid bin Talal bin Abdul Aziz Al Saud and the age of the QSL card simply do not match.

Another callsign attributed to the Prince is HZ1TC, yet an entry at <http://www.qrz.com/db/HZ1AN> indicates that HZ1TC was issued to a Prince Khalid Bin Talal Bin Abdulaziz Al Saud.

ILLW is only a month away

The online registrations for the **International Lighthouse and Lightship Weekend** on August 17-18 this year stands at 350 - with more to come setting the scene for another record year.

In the lead is Germany on 53, just ahead of Australia with 52. Those arch rivals are followed by the USA (40), England (31), Argentina (21), with Sweden and a lot of late interest from Malaysia (both 15).

So far portable amateur radio stations are lined-up in 34 countries.

The aims of the fun event include raising the public awareness of the old structures, their need for preservation, and engender goodwill.

A small but important representation comes from Belgium (2), Chile (2), Curacao (1), Gibraltar (1), Honduras (1), Panama (1), Sri Lanka (2), Taiwan (1), Turkey (1) and Ukraine (2).

For the online registration of lighthouses, lightships and maritime beacons check out the website

www.illw.net

GOOGLE PROJECT LOON INTERFERENCE CONCERNS

A broadband communications experiment that involves a series of balloons circling the globe is bringing some anxiety to other spectrum users. Concerns have been raised about possible interference from the 2400 MHz and 5800 MHz transmitters on the Google Project Loon High Altitude Balloon project. Google launched 30 balloons from New Zealand which transmit wideband 2400 MHz and 5800 MHz signals and concerns have been raised about the interference they could cause to radio astronomy. The United Kingdom's Register reports that when Google engineer Brad Tucker was contacted about the problem. He said that Google had identified locations where Loon balloons might interfere with radio astronomy. He said that these transmitters had been shut down until these balloons had floated out of range. But its not just radio astronomers that are worried about interference generated by the Google Loon balloons. The Amateur Radio and Amateur Satellite Services are also concerned about deterioration to their communications especially in the area of weak signal operations. This is because both use some of the same frequencies that Project Loon is transmitting on.

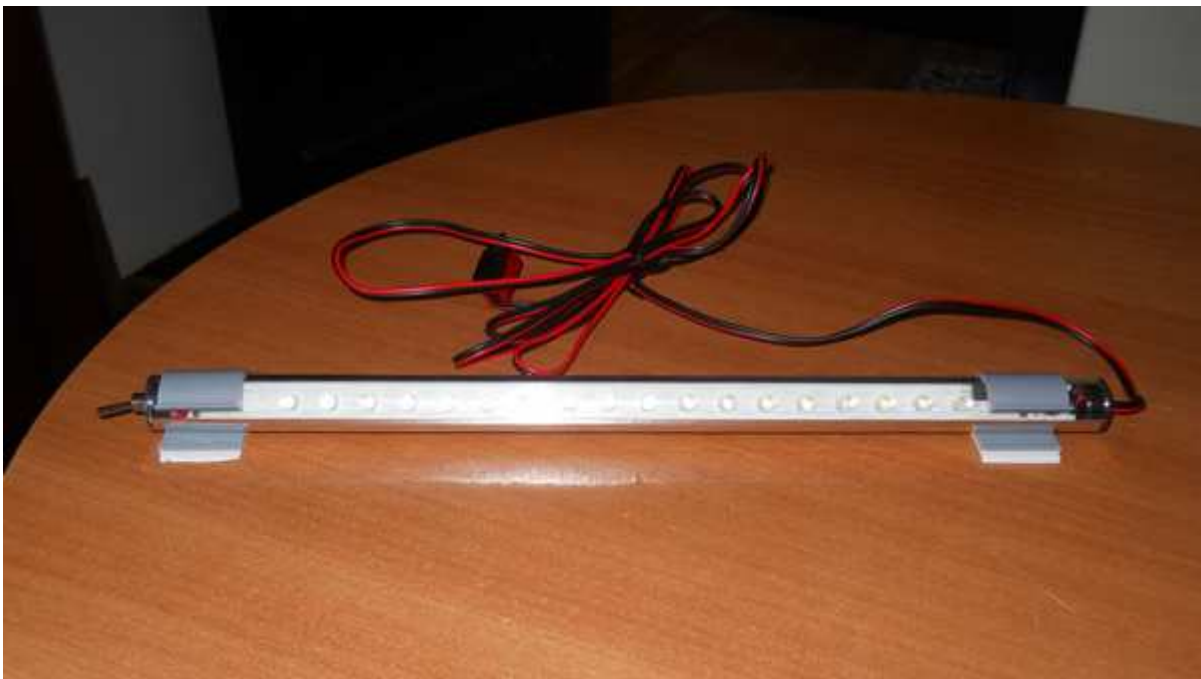


What a neat sand sculpture.....

A look at the PWRBrite LED Strip by West Mountain Radio

by Dean KB1PGH

As you know we just had ARRL Field Day and it got me thinking of how to get portable HF nighttime lighting from a DC power source/battery. Since I do HF portable work and will probably do overnight HF work someday I thought I would look into some sort of reliable light that I can store in my Go kit and which I can use with the Anderson Powerpole system I have. After searching around the internet I came across the PWRBrite LED Strip by WestMountain Radio. The PWRBrite strip has 18 LED lights in a foot long tube. The great thing about LED's is that they require low power and have high output. Plus they give off no heat like regular light bulbs do. The LED's are housing in a foot long tube which has self adhesive, snap in clips. The light bar can also be rotated within the clips for proper light positioning. The light bar also has a simple toggle on,off switch and has a Anderson Powerpole Connector. The PWRBrite works off of a wide range of DC voltage from 11-25 Volts and it draws only 100 MA of current. Those are very two important specs for those who operate HF portable off of battery power as every amp in your battery is critical. As you can see in one of the photos I took the PWRBrite strip to my car and plugged it into the CIGBUDDY which I reviewed last month. I placed my Baofung HT next to it so you can get some sort of Idea of the brightness. I have to say that those LED's put out a decent amount of flicker free light. Especially looking directly at them so it's good that can rotate the PWRBrite to your liking. I would say that the PWRBrite is a great accessory for those who operate HF Portable. The PWRBrite has enough light to light up a two or 4 person tent at night or for individual station needs at night. It makes another lighting alternative for those with bug out bags or HF go kits who use DC power in portable situations. The construction quality is good and the glass is really clear. The PWRBrite is \$39.99 and is worth the money for those certain DC power situational needs. You may get the PWRBrite strip at www.powerwerx.com.



INDIA TOWN HIT BY FLOODS EMBRACES HAM RADIO

The recent rain damage in the area of Valparai, India has led to a decision by civic leaders to install a permanent ham radio station in the town in the coming months. The station will be used to link the local emergency communications office to the amateur radio operators around the world along with district office in Coimbatore and sub office in Pollachi.

The Amateur Radio Club of Pollachi has promised to establish the station free of cost and permission has been sought from the government to proceed with the project. Once established, it would facilitate emergency communication during the time of crisis and disasters.

Meantime, an experimental station was set up on Saturday, July 6th and is functioning as a tool for storm relief and forest officials. Based on their positive feedback, a radio club spokesperson says that permission is expected to be granted shortly and the ham radio emergency communications station should be a reality in about month. (Times of India)

FCC MODIFIES CALIFORNIA HAMS LICENSE AFTER VEC SAYS IT MADE CLERICAL ERROR

The FCC has gone ahead with the license class modification of a California ham after it was notified by the supervising V-E-C that it had made a clerical error. One that had awarded James H. Schofield, KI6JIM, a General Class ticket even though he was only eligible for Technician class privileges.

As previously reported, on November 29, 2012, the W5YI Volunteer Examiner Coordinator sent a data file to the Commission requesting that Schofield's operator license be upgraded from Technician Class to General Class. Based on this application, the Commission granted Schofield a General Class license on November 29, 2012.

But on May 30, 2013, the W5YI VEC notified the Commission that it had made a typographical error in the original 2012 data file and that a licensee other than Schofield had qualified for a General Class operator license. As a result the FCC proposed to modify the license for Station KI6JIM to show Technician Class operator privileges.

The Order Proposing Modification was released this past June 4th. Schofield did not protest the proposed modification of his license within the requisite thirty-day time frame. As such Schofield is deemed to have consented to the proposed modification. (FCC

NYC POLICE TAKE DOWN UNLICENSED BROADCAST STATION

Running an unlicensed broadcast radio station in the Metro New York City area can put you behind bars. Amateur Radio Newsline's Stephan Kinford, N8WB, reports:

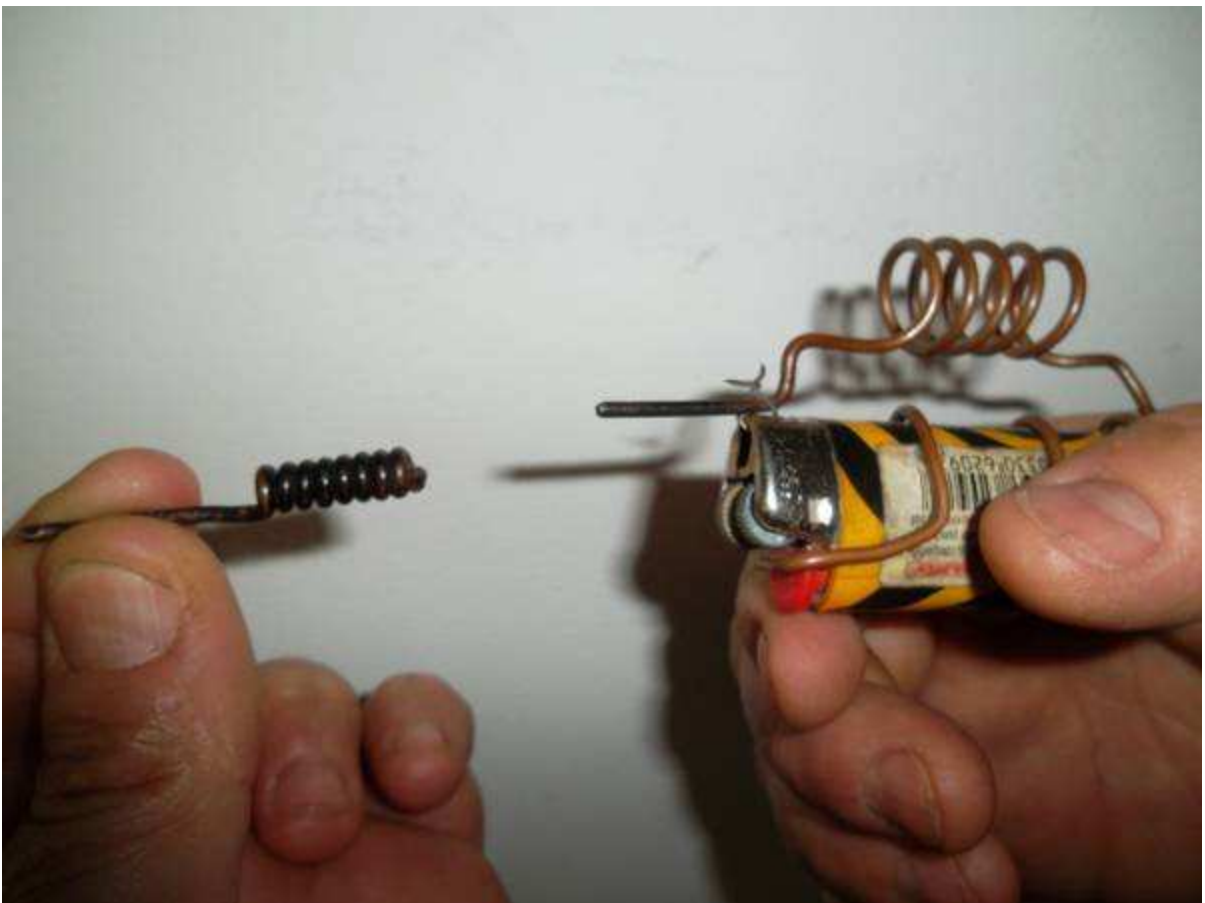
Detectives in New York City have arrested two men for allegedly operating an unlicensed radio station on 104.7 MHz. The Kings County District Attorney's Office says Seon Bruce and Solomon Malka are charged with making unauthorized radio transmission which is a class-A misdemeanor.

To thwart the illegal operation, detectives bought advertising on the station and an FCC engineer traced the signal to a rooftop antenna on a 50-story building in Manhattan. The detectives then seized the transmission equipment.

According to the Kings County District Attorney, Solomon told them he installed the stations gear and knew the station didn't have a license. Investigators also found equipment for another station, 91.7 MHz, which was on



McGyver portable soldering iron - \$10 (Nashua) Craigslist



WESTERN ELECTRIC AND THE 300B TRIODE RETURN

The Western Electric name has been resurrected for a new vacuum tube manufacturing venture here in the United States. With its headquarters in Rossville, Georgia, the operation will make vacuum tubes mainly for use in high-end audio components.

While tubes or valves as they are known in Europe were once the mainstay of the world's electronics, they were eventually supplanted by transistors and integrated circuits. Soon afterward most United States based manufacturers deserted the manufacture of tubes to follow the solid state trend.

In recent years vacuum tube manufacturing has become the domain of specialty companies mainly in Russia and China, but even they only manufacture the most popular tubes like the venerable 12AX7 and 6L6.

These are used in high end specialty audiophile gear and portable amplifiers preferred by some musicians.

The new incarnation of Western Electric is headed by Charles G. Whitener Jr.. Initially it will sell only a handful of different tube types that are exact reproductions of Western Electric "classics," such as the 300B. The latter was a power triode audio output tube that was originally designed to be used in movie theaters sound installations.

You can read the entire story of the return of Western Electric tube manufacturing on the web at tinyurl.com/western-electric-lives. (Times Free Press)



ARRL CEO DAVE SUMNER K1ZZ ON SPECTRUM PRESSURE

Spectrum Pressure is the title of an editorial appearing in the August issue of QST magazine. One that details the reasons that ham radio must remain vigilant as pressure grows to make more spectrum available to other services.

The article was penned by ARRL Chief Executive Officer Dave Sumner, K1ZZ. In it, Dave talks about last June's

Presidential Memorandum representing the next stage in making more spectrum available for commercial wireless broadband. It also covers the implications this has for current users of the bands from 400 MHz through 6 Gigahertz including radio amateurs.



Unlike other articles and news stories we have seen on this topic, this is not a piece meant to convince the reader that the sky is falling. Rather it is an honest and very easy to understand look at the needs of wireless communications in the years that lie ahead. This in itself makes it a must for every ham regardless of personal interest to read and share through discussions at club meetings and elsewhere.

Dave Sumner's article is on page 9 of the August issue of QST. If you have the magazine but have not yet taken the time to read it, we suggest that you make doing so a priority. As many scholars say, knowledge and understanding are always the first line of defense.

HERE COMES THE SUN - THERE GOES THE SUN

While the sun is currently at the projected peak of its 11 year solar cycle, our home star has been relatively quiet in the area of sunspots and their affect on radio propagation here on planet Earth.

Researchers say that this year's solar maximum is shaping up to be the weakest in some 100 years and the next one could be even quieter. This according to scientists who study the solar cycle as it affects our home planet.



One of these is David Hathaway of NASA's Marshall Space Flight Center in Huntsville, Alabama. In an early July teleconference Hathaway told reporters that we are witnessing the smallest solar maximum we have seen in the Space Age. Also that the next one, cycle 25 could be even quieter.

About every 11 years, the sun goes through a cycle defined by an increasing and then decreasing number of sunspots. The current cycle known as Solar Cycle 24 has been underway since 2011. Its peak was expected in 2013 but there have been fewer sunspots observed this year compared with the maximums of the last several cycles.



Sunspots are the dark temporary regions on the surface of our home star that are thought to be caused by interaction between the sun's plasma and its magnetic field. They are also the source of the solar flares and Coronal Mass Ejections that in turn send charged particles into space.

Those that hit Earth hold the potential of causing damage to satellites and producing surges in power grids. But they also affect radio propagation by causing short-term High Frequency blackouts while at the same time producing some dazzling auroras above the planet's poles that radio amateurs and others have long used for propagation experimentation. Ham radio operators on 6 meters and above have been known to make some amazing DX contacts by bouncing signals off auroral trails.

Giuliana de Toma, a scientist at the High Altitude Observatory in Colorado says that the sunspots occurring during a calm maximum have the same brightness and area as the ones observed during a more turbulent peak. The only difference is that there are fewer of them and that's why this is why low cycles like this one are considered as being weak.

Scientists seem to agree that a small Cycle 24 also fits in with a 100 year pattern of building and waning solar cycles. They say that they don't know yet the exact cause of this trend, but they note that there were weak solar cycles in the beginning of the 19th and 20th centuries as well as now in the 21st. For ham radio this means that while the various bands are far from dead, that their full potential may not come about during this solar cycle.

Weak sunspots or not, one group having a lot of fun with ham radio this week is the Boy Scouts of America who are holding their 2013 National Scout Jamboree from July 15th to the 25th. Amateur Radio Newslines Bruce Tennant, K6PZW, has the details:

Approximately 40,000 Scouts have converged on Mount Hope West Virginia for this years National Scout Jamboree being held at the nearby at the Summit Bechtel Reserve. While there are a lot of high impact events for scouts to participate in at this years Jamboree, the K2BSA ham radio station enjoys a high profile location nestled in between the AT&T Summit Stadium, Summit Center, and the landing pad for one of the many Zip Line adventures.

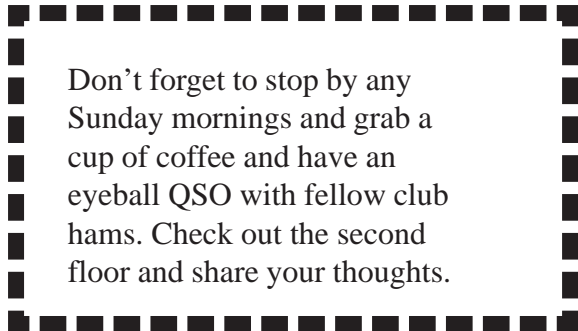
The purpose of K2BSA is to introduce the science, technology, and fun of amateur radio to Scouts and Scout leaders. It's also there to help scouts to earn their Radio Merit Badges and to serve as the amateur radio voice of the Jamboree via two-way radio contacts worldwide.

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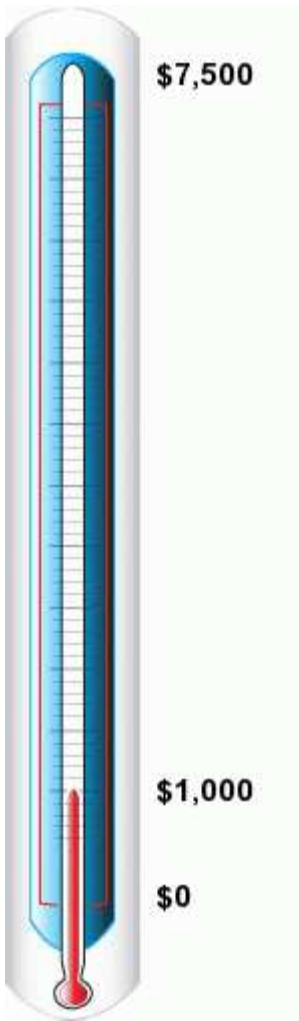
K2BSA off air audio: ".We have some updates on K2BSA operations. Today we have completed 25 Radio Merit Badges, We've had 41 Scouts go through the Amateur Radio Direction Finding program; we have given 418 Scout demos and completed over 460 QSO's."

With equipment furnished by Icom America, this year's K2BSA station is providing scouts with a very wide ranging exposure to amateur radio. Mentors are on hand to explain what it is, how it is relevant to them, and providing them an opportunity to try as many aspects of the hobby as possible. It will also be providing demonstrations to at least 4,000 Jamboree participants. This includes stations operating High Frequency SSB and PSK-31 as well as VHF and UHF FM. Hidden transmitter hunting classes will be available and on-site Amateur license testing will available as needed. APRS will be active and K2BSA will be on the air with CW as time permits.

Even if you are not able to attend the 2013 Scouting Jamboree you can still help support the event with a contact or two. K2BSA will be on the air throughout the event operating SSB and PSK-31 on 75 through 10 meters. They also have an Echolink demonstration station on Node 4566 signing K2BSA-R and D-Star contacts are available via the WV8BSA repeater and Reflector 033A.



Don't forget to stop by any Sunday mornings and grab a cup of coffee and have an eyeball QSO with fellow club hams. Check out the second floor and share your thoughts.



FUND RAISER FOR THE REPAIR OF THE EXTERIOR OF OUR BELOVED CLUBHOUSE.

As you are probably aware, we lease the CAARA building from the City of Gloucester and in lieu of paying rent, we agree to fix certain maintenance items on a list prepared by the city.

We are in the process of paying for a survey of our property lines to settle a possible dispute with a new neighbor and so we know our actual property lines should we park out emergency trailer on the side of the building, etc. This was also an item we agreed to do for the lease agreement.

We also agreed to paint the building but after looking at it ourselves (Jake & the house committee) and calling in some painting professionals for prices and advice, it is pretty clear we need to reside the front and left side of the building.

We are looking at over \$7,500 dollars to do the job right and then we will not have to worry about it in the near future. The building was sided with shingles over the existing clapboards in the early 1980's and they would probably have lasted longer had we done the required painting/staining maintenance.

So we need your financial help, we have one donor who kicked off the project with a \$1000.00 donation and we have another member who will donate \$1000.00 if someone matches it! Please consider a donation to this valuable resource.

Thoughts About Being A Member of CAARA

CAARA is approaching a very important point in the club's history. The Board of Directors has been working with the City of Gloucester to purchase the building we've occupied for nearly 35 years. Though we have leased the building for most of the history of the club, the negotiations always bring up the uncertainty of whether or not CAARA will remain in its home for the future. Because the Magnolia Historical Society successfully purchased the Blynman Schoolhouse in Magnolia from the city this year, it looks like CAARA could qualify for the same deal. There will be more on the details in later articles.

As I think about what it would mean for CAARA to actually own 6 Stanwood St., several things come to mind. First is stability. Currently, every few years, our lease comes up for renewal. CAARA must apply to the city for the lease, with no guaranty of approval. This uncertainty leads to a lack of long term planning for the building, and a reluctance to invest in something that isn't owned by the club. Owning the building changes this.

The next point about owning 6 Stanwood St is responsibility. Owning the building means a longer term vision of the building than our currently leasing situation presents. This means taking into account long term maintenance projects—identification, scheduling and funding. At this time the building does not reflect well on CAARA. One of our key missions is to help Cape Ann in the event of emergencies. If you were a city official, what would you think by looking at the building? A professional volunteer organization, or a social club that can't keep up its own facility? We can change this perception.

I've compiled a list of items that require review as described above:

CAARA Major Maintenance

Building Exterior

- Siding/Trim (paint)
- Windows/Doors/Storm Doors
- Porch
- Roof

Heating/Plumbing/Electrical

- Furnaces/Chimney
- Bathrooms
- Kitchen (sink)
- Hot Water
- Check Anode in HW Heater
- Power/Lights

Grounds/Landscaping

Driveway

Basement

- Lighting
- Waterproofing

Interior

- 1st Floor
- 2nd Floor

Furniture

Storage

Security

Estimate for annual budget

The next level is day-to-day maintenance. Rarely do I see someone pick up a broom or empty the trash. Part of this is leadership, part organization, and part is personal initiative. I think as many of us have told our children, don't wait to be asked to do something, ask what you can do (hmmm...sounds similar to something JFK said). If you want to do something for the club, here is a quick list of tasks that would make CAARA a much more pleasant place to hang out.

CAARA Routine Maintenance

Clean Bathrooms
Sweep/Mop Floors/Dust
Empty Trash/Recyclables
Wash Windows (fix drapes, new blinds)
Organize/Clean Kitchen
Clean/Defrost Refrigerator
Check Emergency Power Systems
Check Dehumidifier
Grounds Upkeep
 Mow grass/Weed
 Trim bushes
Supplies
 Coffee
 Paper towels
 Toilet paper
 Wash kitchen towels
 Cleaning

Our building gets treated more like a garage than a communications facility. This requires an attitude change. Not just “this place looks like a dump” to “what can I do to help?” or better yet, “this is what I can do to help”. Though we can accomplish our goals with the facility the way it is, we should strive for better—we should be able to host meetings with other organizations and be proud to show off the building. Remember, this is your club.

OK, so a lot of us aren't fond of housework, so what else can be done? For me, there is no end of things that would be a big help around the club. CAARA has tons of gear that needs to be managed, as well as the getting the building in shape for operation.

CAARA Projects

Finish 2nd Floor Renovation
 Install AC power & cableways
 Finish painting walls
 Organize test area
 Create vintage station
 Organize workbench
 Clean out attic
Management of stations
Inventory of equipment
Basement rack for antennas

Outside rack for tower sections
Finish emergency generator modification
1st Floor Renovation
ebay sales
Clean up antenna tower
Get APRS digipeater operational
Install vertical antenna(s)
Install emergency exit lights
Online weather station (?)
Local scanner frequencies online (?)

So all of these things require time and a lot of them need money. If we look at the membership and what CAARA collects in dues, you find out pretty quickly that our dues we collect pay for the utilities—and no more. This means that 75% of our budget comes from donations and fundraising. How does CAARA compare to other clubs as far as dues? We're a few dollars more, but if you consider what we do and our capabilities with a building with a kitchen, you certainly get a lot for your money.

CAARA Membership Statistics

128 members on list
88 paid dues (69%)

Of those paying dues:
 54 Individuals (\$1,620)
 21 Retired (\$315)
 13 Discount-family, etc. (\$155)

Total dues collected: \$2090,
which is less than the utilities budget for CAARA.

Dues for other clubs:
 NSRA \$20 (no facilities)
 MMRA \$25 (no facilities)
 Boston \$25 (no facilities)
 Great Bay \$20 (no facilities)
 CNHRC \$15 (no facilities)
 CAARA \$30 (full facilities)

CAARA dues
(1978) \$12/yr = \$46 US\$ 2013

If you think about it, the dues for an individual member comes to \$2.50/month. Now we have several members who never come to the club, but pay their dues every year. I want to thank those people for supporting the club in their own way. For those members who get something out of the club (social interaction, a great newsletter, organized public service, interesting website, a place to “play radio and melt solder”, educational opportunities, etc.) this is WAY more than a bargain.

Even if we increased the dues by 50%, that would only raise \$1,000 a year more—assuming that no one left the club. The dues also have not kept up with inflation from the time the club was founded—when there was no 6 Stanwood St home to maintain and pay utilities.

So what does the club offer? We’re all busy with our lives, but I think there are plenty of opportunities for members to contribute, from Emcomm to club management, to station management to contesting—from education to public communications. Much of this falls on a few members, but I suspect that most people don’t realize how much work there is to running CAARA, and what opportunities exist.

CAARA Activities

Club Management

- Facilities/House Committee
- Administration/Finance
 - Fundraising
 - Ebay
 - Scholarship Breakfast
 - Records Archive
- Membership Committee
- Sunshine Committee
- Monthly Meeting Program
- Communications
 - Newsletter
 - Website
 - Calendar
 - Public Info/Govt. Liaison
 - Club History

Club Radio/Internet Operations

- Repeaters/Automated Systems
 - 2m, 440 MHz, Echolink
 - APRS digipeater, AIS
- Stations
 - SSB (1st floor)
 - Digital, CW
 - FlexRadio (SDR)
 - SSB (IC-7000, IC-706MkIIG)
 - VHF (1st & 2nd floor)
- Antennas/Feedlines
- Equipment Management
 - Maintenance/Repair
 - Inventory
 - Loaner Program
- Portable Operations
- Internet/TV/Phone
 - Station Computers
 - WiFi, Landline
 - Video Streaming
 - Video Projector
- Contests
 - Winter Field Day
- ARRL Field Day
- Special Events
 - Thacher Island
 - Lighthouse Activation
- QSO/Awards Management

- EmComm/Public Service
 - Gloucester EOC
 - Cape Ann Em. Planning Team
 - Public Service Event Comms
 - EmComm Trailer
 - Scholarship Program

- Education/Training
 - Tech in a Day
 - VE Testing
 - Elmering
 - CW
 - License Training

- Social Events
 - Sunday Coffee
 - Summer Cookout
 - Christmas Party

So, what's the bottom line? CAARA is a very diverse and dynamic club, with many interesting members and many opportunities to be involved and contribute. The building is a huge part of what CAARA is, and a big responsibility. Owning a building takes a lot of money and effort, and the CAARA membership is what makes this happen. We need your time and money—and in return, you get access to a

pretty special group of people who do some pretty amazing things.

Now you can't say, "I didn't know..." — now you can say "I'd like to help out."

Stan, W4HIX
President, Cape Ann Amateur Radio Assn.