CAARA Newsletter

AN ARRL AFFILIATED CLUB MARCH ISSUE- 2014

From the President's Desk

by Stan-W4HIX

February 2014

I can't believe how quickly a month goes by sometimes. We had another Field Day meeting—this year we want to involve as many members as possible. If you can't help out either setting up, operating, greeting people, acting as a GOTA coach, transporting gear, putting up antennas, sending radio grams, cooking meals, tearing down, etc., at least stop by, sign the log and see what's going on. We have received a letter of permission for using Fuller again, so hopefully there won't be any changes.

We continue to work on the purchase of 6 Stanwood St. We continue negotiations with our neighbor regarding her access to her property. As you might image, these negotiations can be tricky. Our attorney—Meredith Fine has been great. Atty Fine was the editor for the Gloucester Daily Times before its sale to the Lawrence Eagle Tribune. She's since received her law degree and has an office next to City Hall. She's funny, very sharp and a pleasure to work with. Since Bob Laramee retired, we had to find another attorney and it is very likely she will be the club's attorney in the future.

Looks like March is pretty quiet for activities—the NH ARES group is putting on their ARES academy for the fourth year and I've signed up for the day on March 29th. Several things are coming up in April, including Tech in a Day on the 19th, the Boston Marathon on the 21st, and I think another road race from our friends at YuKan Run.

The remote station work continues. We're running some experiments with both the FLEX-3000 software defined radio and the Icom IC-7000 using Ham Radio Deluxe. We have a few testers for the systems. We also have a lot of work to do on how to manage the access to the radios. More on this later.

73 de Stan, W4HIX
stan@w4hix.com

Information Desk

by Dean-KB1PGH

Of course if you have been in the ham radio circles long enough you will hear the saying "The Magic of Radio".

I often do wonder how many amateur radio operators do take for the granted just the simple fact of pushing a button on their radios and talking across the world everyday? With all of today's technology we have become desensitized as to the wonders of it all.I was looking through the ARRL Handbook the other day and how easy it is today to have all of that knowledge at our fingertips.

Just a little over 100 years ago all of that knowledge didn`t even exist! Just think of all the people who took all that time to experiment and tinker and invent to create all of that knowledge for us? I can only imagine what old time hams must be thinking when they were operating non solid state radios with tubes in the 60`s all the way to todays software defined radios like the Flexradio and Elecraft KX3! Just think of all that your transceiver has to do to transmit your voice? Just taking your voice and turning it into an electrical signal, then turning it into a electromagnetic signal and then amplifiying it to 100 watts and then letting that go into the atmosphere! How many time do we sit and really think of all of the engineering that is going on in such tiny radios as the Icom IC 7000?

Most even forget that at one time transmitters and receivers were seperate radios! Now we move on to how DX happens. How lucky we are to live on a planet with just the right atmosphere and especially an

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

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

Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Reporter

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the Cingular tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations. CAARA also operates the W1GLO repeater on 224.900. The former W1RK 443.700 repeater with antennas located in Magnolia is now located at the CAARA clubhouse and has a very limited range.

The Association is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes a permanent HF station with rotating beam and vertical antenna along with a 2 meter packet station and 2 meter voice and 220 MHz transceivers.

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

Monthly member meetings are held on the first wednesday of each month at 7:30 PM except for July and August.

Each Sunday evening at 9:00pm, the club operates a 2 meter net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

New! The club is open every Tuesday from 4-8PM for CAARA members to stop by and socialize, as well as use the extensive collection of ham radio gear.

Information Desk ...continued from page 1

ionosphere!It`s so easy to forget that an HF transmission quicky dissapates in power, which travels at 186,000 miles an hour, 30 to 250 miles into the ionosphere,then reflects at just the right angle to land on a piece of wire thousands of miles away at just a milliwatt of power or so. How lucky hams are to live in the internet age,with instant access to every tidbit of ham radio related information you need.

Plus DX clusters,Yahoo Groups for every radio, Youtube instructional video's on anything ham radio related. Even websites such as QRZ and EQSL are a heck of alot easier than having to look through a giant callbook and having to mail QSL`s .

Today its easy to a ham radio operator compared to even a generation or two ago with SDR radios, DSP chips in every radio, full digital displays, lighter and smaller radios and even expensive ham radios are cheap compared to what past generations of hams had to pay per the rate of inflation.It`s also easy to take for granted the amount of radio spectrum we have access to for only a $15.00 FCC test fee compared to the giant license fees broadcasters and other communication providers have to pay.

So the next time you fire up your rig please take the time to reflect on all those people who came before us to create such an invention and we should all be amazed at all the "Magic" that goes in our rigs and how our signals get to one place to another.

EDITOR ROUNDUP

by Jon-K1TP

The Tuesday Evening Open House has been very succesful. Gardi is running a General Class License Review for those of you wanting to upgrade while others are playing radio or just relaxing at the club. Stop by and say hello.

Mr. Mike- W1RC tells me that Nearfest Tickets can be bought in advance for the first time on their website. Do it, it makes getting in so much easier.

CAARA will have a table this year at Nearfest so you will be able to stop by and say hello and if you wish, help us sell excess gear for the club. Should be fun.

Ham radio CubeSat deployment postponed

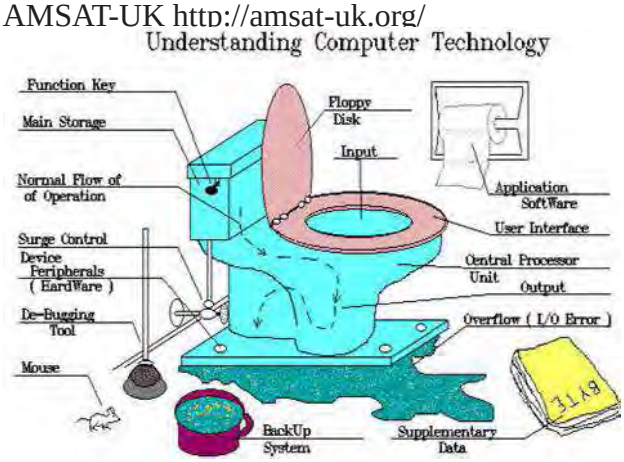
The deployment of amateur radio CubeSats from the International Space Station planned for February 6 has been postponed until next week

NASA say:
Flight Engineer Koichi Wakata KC5ZTA spent his morning working in the Japanese Kibo module to install a deployer mechanism that will be used in concert
with the Kibo robotic arm to "launch" the first set of NanoRacks CubeSats.

Wakata, who ran into some difficulty last week installing an electronics box that would help control the deployment of the mini-satellites, successfully installed that box after troubleshooting an alignment issue.

The deployment of the first batch of CubeSats, which had originally been scheduled for this week before being postponed following last week's installation issue, has been postponed further to make sure that the CubeSats do not fall into the intended orbit of the Global Precipitation Measurement satellite launching later this month. The exact date of the CubeSat deployment is still being evaluated.

AMSAT-UK http://amsat-uk.org/



What's Happening around your CAARA Clubhouse?

The weekly Tuesday "Open House" at CAARA EMCOM Headquarters now hosts a study group for hams wishing to upgrade their ham ticket to General Class on the first floor.

The second floor is open for hams to use the radio stations, use the test equipment.....and hopefully volunteers will continue sorting and organizing all the donated gear, work on the vintage stations to get them up and running, and maybe starting to organize the thousands of components into a usable area in the closet. We need your help, this is your club and we would appreciate a few hours of your time....heck, you might even have some fun doing it! Experience not needed.

ON THE AIR: TESLA MEMORIAL HF CW CONTEST MARCH 8 - 9 The 2014 Tesla Memorial Contest will be held March 8th starting 18:00 UTC and ending at 8:00 UTC on the 9th. The competition is open to operators world-wide. Participants must use CW only on the 80 meter band. Points are awarded for distance between stations. For full details are at tinyurl.com/tesla-memorial (IRTS) **

ON THE AIR: ST. PATRICK DAY SPECIAL EVENT STATION GB1SPD March 17th is Saint Patrick's Day and not only will it be celebrated world-wide but also on the ham radio bands. This with word that Irelands West Tyrone Amateur Radio Club will be putting special event station GB1SPD on the air from the Strule Arts Centre in Omagh in the County of Tyrone some 70 miles from the city of Belfast. GB1SPD will be operating on HF, VHF, UHF and Digital Modes. A special QSL card will be sent to all who make contract. (Southgate) **

DX NEWS In DX, G3XAQ will return to Uganda to operate as 5X1XA until March 16th. His activity will be CW only. QSL via G3SWH. DK1AX and DK1MA will hold a holiday-style operation from Tonga through March 7. They plan to use the call A35AX for a few days from Tongatapu and from their main location on Vava'u running CW, SSB and RTTY. QSL only via OQRS. K1LI should be on the air from Dominica as J7Y through March 10th. His plans included entry into the ARRL DX SSB Contest. QSL via his home call. WW2DX, W2RE and N2EIN should be active as VP2EZZ from Anguilla on 80 through 6 meters. DS4DRE will be operational stroke 4 on a long term activation of Taehuksan Island. He will be there through the remainder of 2014 operating 80 through 10 meters using SSB and CW.

Installing a 160 Meter Vertical Antenna

From left to right: Stan,Roger, Ross, Gardi, and proud new antenna owner, Ron.

By Ron Richards/WB1EAZ

On Saturday, February 8th, members of CAARA assembled at the home of WB1EAZ to assist in the erection of a Cushcraft 160 M vertical antenna (MA 160V). As the antenna had been previously assembled, the main effort was the installation. Gardi, KA1BTK; Stan, W4MIX; Roger, KB1YTJ; and I installed the guy ropes, then lifted the 33 foot vertical into position and secured the guy ropes. With the experience present, the work went smoothly and quickly (Ross W1RAB showed up about ½ hour after work began (due to prior commitments) and all the work was complete).

Then the group with Elaine, KA1UCC (my XYL) retired to get pizza, Upon returning home, I tried to hook up the coax to the rig but found that the SWR was to very high and erratic.

The Following Saturday, Gardi dropped by to assist with retightening the guy ropes. At the same time, he noted that the coax connection to the antenna was loose and a clamp on the antenna required tightening. After these two items were corrected – the SWR dropped to well below 2.0 and good to go. Shortly afterwards, I was able to contact the W1AW station operating from Michigan on 160 M with a booming signal.

I put up the antenna to work the CQ 160 M contest and the ARRL SSB contest the following weekend. Thanks to all for their help.

Note: This past weekend in the CQ 160 M contest and working about 4 hours of the contest, I made about 70 contacts ranging from the Azores to Puerto Rico to South Dakota.

So Safe it Hurts *by Curtis-AA3JE*

I had a friend the other day who was undergoing a perfectly normal, and usually life saving, colonoscopy. If you have not had one of these, it's the modern equivalent of the medieval "fast and purge" so beloved of the physicians of old. You get an instruction sheet, which tells you to drink only clear liquids, and to take a dose of laxatives that guarantees you will be in the john for six to twelve hours.

Anyway, my friend had his colonoscopy, which was looking for bowel cancer, (which is 100% curable if found early), and they punched a hole in his colon, which resulted in his being admitted to the hospital, put on IV antibiotics, and being generally fussed at till he got better.

It put some perspective on the recent furor over mammograms, chest x-rays, tomography, and other medical screening tools. Every time someone thoughtful suggests that it might not be a good idea to x-ray everyone to find rare cancers, the population is treated to someone showing up on TV whose cancer was found early, who claims the testing saved their live.

Now we are supposed to buy cars that "read" other traffic and stop on their own. To make us "safer".
I am skeptical. The reason is my old car. It was a good car, it was a great car, in fact. It got between fifty and seventy miles to the gallon, the right seat came out so the dog fit nicely, and it drove like a goosed up go-kart. But it was "over-engineered". Or just haunted.

About the second year I got it, it began to start hard on rainy days. It always started, more or less, but it would crank longer and longer, till one thunderstorm it stopped and would not start.

I called Tally's, and had it towed to the dealer.

They called, and told me that the problem was the "Theft Immobilizer". This was an anti-theft device that looked for the RFID in the key fob, and if it did not see it, it cut the ignition, flashed a light on the dash, and refused to start. They reported it fixed, and $600 later my care was back.

A year later, in another storm, it happened again. Another trip on the tow truck and $600.

They called, and told me that the problem was the "Theft Immobilizer".

Six months later, it rained hard again. You guessed it. No start.

This time, I left the car at the office, got a ride home, and when I went back to meet the tow truck, the car started (it had dried out).

Puzzled, I drove for another six months, and in another thunderstorm, the car stopped again.
Someone brighter would have figured it out sooner, but after the fourth time, even I got it. When it rained hard, the unit on the firewall got wet, and could not find the key chip. Having replaced the unit twice, to no avail, replacing it again made no sense.

So I had a car that worked fine, but would refuse to start if it rained hard. Since I live on Cape Ann, it was time for a new car.

Now this was a puzzler. The anti-theft system, intended to protect the car, made the car useless (I will not tolerate a car that randomly stops running, had too many like that as a kid). My good car, made useless by a well-intentioned safety feature.

I am sure that 99% of the time the "anti-collision" feature the DOT is considering will work, and save a life, but I think of all the kids who died, their necks broken and chests crushed by air bags.

Somehow, being told that "on average, your chances of being saved by your safety device are greater than of being killed or crippled by it, does not go down well. I still get the willies when I get in my daughter in law's car, and the doors lock, and will only unlock from the driver's seat. Heck, I even remember the day I got stuck in the seat belt of my mother's Chrysler and had to cut my way out.

It makes you uneasy. I remember the $50 light bulbs that were supposed to last 50 years and all gave out in six months. I remember the CO meter that developed epilepsy and randomly sounded off at 3 AM.

OOPS, got to go, I'm getting ready for my colonoscopy.

HAM NEWS

Send your name to the asteroid Bennu!

NASA is inviting people around the world to submit their names to be etched on a microchip aboard a spacecraft headed to the asteroid Bennu in 2016.

The "Messages to Bennu!" microchip will travel to the asteroid aboard the Origins Spectral Interpretation Resource Identification Security Regolith Explorer, or OSIRIS-REx, spacecraft. The robotic mission will spend more than two years at the asteroid, which has a width of approximately 1,760 feet (500 meters). The spacecraft will collect a sample of Bennu's surface and return it to Earth in a sample return capsule.

The deadline to submit names online is Sept. 30, 2014. Participants who submit their names to the "Messages to Bennu!" campaign will be able to print a certificate of appreciation to document their involvement.

For more information and to submit your name, visit http://planetary.org/bennu.

First-Time W1AW/KG4 Guantanamo Bay Operation Set

As part of ARRL's Centennial QSO Party, Ed Williams, KN4KL, and Bill Verebely, W4WV, will activate W1AW/KG4 from Guantanamo Bay, Cuba in late February and early March! The operation will take place Wednesday, February 26, through Tuesday, March 4 UTC. This may mark the first time the US Navy has authorized the use of a "portable" call sign from Gitmo. QSL via ARRL Headquarters (225 Main St, Newington, CT 06111) or Logbook of The World (LoTW).

ON THE AIR: THE ST. PATRICKS DAY AWARD

A group of Northern Ireland radio amateurs have introduced a new award for hams who want to celebrate St. Patrick's Day on the air. While details are still a bit sketchy, the organizers hope this to be an annual event every March 17th. Those who want to participate as an award station or who want more information on the event should go to stpatrickaward.webs.com on the World Wide Web. (MI0RYL, Southgate) **

Current picture of vintage shack of K1BGH, Art, on Cape Cod.

Art was celebrating the 75th Anniversary of the Seagull Net and he sent me e a picture of his rig.

Art is a longtime ham and has a modern setup as well and active on all the bands, he can hit our repeater on occasion, so if you hear him, say hello. Art also loves to restore old hot rods and has a few beauties. He retired from offshore fishing and now owns his own excavation business

Brown University LED CubeSat

The **EQUiSat** CubeSat will have an LED beacon visible to the naked eye at night and will transmit data about its health and position EQUiSat, being built by a team of students at **Brown University** in Providence, Rhode Island, has been cleared for launch.

NASA has announced that EQUiSat is among 16 small satellites selected to fly on rockets to be launched over the three-year period beginning in 2015. EQUiSat has not been assigned to a particular rocket, but the announcement assures that the student-led project has a ticket to ride.

The launch will be part of NASA's CubeSats Launch Initiative. CubeSats are miniature spacecraft — four-inch cubes weighing around two pounds — that can be included as auxiliary payloads on rockets flown for other primary missions. The program's purpose is to spur innovation in the design of relatively low-cost satellites and to get students interested in space technology. To get into the program, the Brown team submitted an application and made presentations to two review boards that judged the project's technical feasibility and overall merit.

EQUiSat's mission will be largely educational. The tiny satellite will carry a flashing LED beacon that will be visible to the naked eye as it passes through the night sky. In Providence, the beacon should be approximately as bright as the North Star, flashing every two minutes when in the night sky. EQUiSat will also broadcast via radio data on the health of its systems and its orientation relative to the Earth and sun. The signal will be available to anyone with a simple amateur radio receiver.

The idea is for EQUiSat to be a visible and audible ambassador from space to students and space enthusiasts on earth. The Brown team plans to combine the launch with a public outreach program. An app will help people track EQUiSat and know when it's visible at their location. The team also plans to put together lessons that use EQUiSat to teach middle and high school students about satellites, orbital science, and space in general.

"CubeSats are a really great architecture because, compared to other kinds of satellites, you can build them really quickly and get a launch comparatively easily," said Emily Gilbert, a physics concentrator and an EQUiSat team leader. "They're launched as secondary payloads so you don't need to commission your own rocket for hundreds of millions of dollars. So it's great for student groups without a lot of money and without a lot of time."

A Portable Shack

by Dean-KB1PGH

To begin lets just say my newborn baby kicked me out of my shack at the house so as the old saying goes “Adapt or die”. I had to find a way to keep all of my radio gear in one location.I was using a Stanley “Fatmax” toolbox when I operated portable but I sort of outgrew it. I had other radio gear and parts scattered in the basement and I wanted everything all in one place. I don`t know if you call it downsizing or just reorganizing. So one ay I was looking for something else on the Home Depot website and I saw an ad for the Stanley Fatmax 4 in 1 Mobile workstation (Model # 0208002) which was on sale for $50.00. I searched around and saw that it got good reviews and saw a couple of Youtube videos of it in use so I decided to give it a try,especially since I had good luck with the smaller version toolbox.

As you can see in the first photo the workstation sits about 2 and a half feet tall and is made out of heavy duty molded UVC protected hard plastic. The workstation is made for construction use or regular homeowner use. It is made to be wheeled around a job site with the two heavy duty wheels and the extending handle in the back. The workstation has three levels of storage and a take out tray on the top.I would have to say that the construction quality of the mobile workstation is geared more for homeowner use than used on a professional heavy duty construction jobsite everyday. When extended the handle is a little floppy but locks in place nonetheless. When I wheeled it around the balance felt nice and it was just the same as wheeling carry on luggage.

In the second photo you can see how the workstation opens up in a “Cantilever” action to expose the 3 compartments. All one has to do is pull on the silver latch in the middle and pull back and the whole thing opens up easy with the wheels gliding backwards in unison. The top shelf can be placed on top of the open cover in order to get to the top storage compartment.the middle compartment in sectionized into either 8 little compartments or 4 longer bigger ones depending on your choice of removing 4 plastic dividers.

In the 3rd photo you can see a side view of the workstation so you can see how the workstation slides out and is braced and how far out it goes.You also get an idea of how deep the 3 different levels are.What I did was in the first level I put all my wiring,cables,portable VHF antenna,headphones and rigrunner.In the 2nd sectionized level I have a soldering section,an electrical section, a tool section and a pen and pencil section.In the bottom deepest section I have my Icom IC 7000 and autotuner in a Tac-Comm kit,my antenna analyzer,a power inverter and a speaker.I am looking forward to using this mobile workstation as a portable shack as I operate HF portable when the warm weather hits.Plus the workstation also has an area to put a padlock on to keep your stuff safer.I'll have a much easier time not having to dig around to find stuff and more tools and other items with me just in case I need them. I can see this workstation being used for emergency communications work as well. I bought this Stanley Fatmax mobile workstation for $50.00 on sale from $80.00 but I have seen the price all over the place as high as $130.00 on the internet so if you choose to buy do some looking around to get the lowest price.So this is just another way to keep active in ham radio regardless of your home situation. Now all I have to do is get my kid to earn his Tech license when he gets old enough.

Dean's mobile shnack

R0000OR CELEBRATES WINTER OLYMPICS IN SOCHI RUSSIA

Special event callsign R0000OR (R-Zero-Zero-Zero-Zero-O-R) will be on the air through March 31st in celebration of the 2014 Winter Olympic and Paralympic Games being held in Sochi, Russia. The Four zero's in the call are to symbolize the Olympic rings. QSL's go via UA1OJL direct or electronically using Logbook of the World or eQSL. (WIA News)

A look at Gloucester's New Emergency Operations Center

by Dean-KB1PGH

On Thursday January 29th the Gloucester CERT (Community Emergency Response Team) held an operations exercise to open up the new Emergency Operations Center at the O'Maley Middle School.

CERT leader Carol McMahon lead the team on how to get the EOC up and running from turning the lights on to getting all the laptops up and running, the copy and fax machines working, get the handie talkie radios turned on and the TV's as well.

CERT members also had to turn on and operate the call center as well. This was the first operational exercise for the EOC and the CERT team so they could learn where all the equipment is stored and to see if all the equipment did operate if needed.

There were about 15 members in attendance during this training exercise.

ATTENTION ALL CAARA MEMBERS: THIS IS THE LIST OF PROJECTS WE HAVE IDENTIFIED AS NEEDING TO BE LOOKED AT IN THE FUTURE. This list has not been put in a prioity format, just a list of things that we need to get done in the future, as identified by BOD and club members. Imagine if each member could pledge to complete just one item on the list.

CAARA Betterment Projects List

General Interior Projects:

- Emergency exit signage and lighting.
- Mount flashlights for easy access.
- Fire extinguishers. All current are VERY outdated and need to be replaced! At least one is depressurized.
- Clean up and throw out “stuff” stored/packed in closets, corners, overheads etc.
- Assess and re-power all smoke detectors.
- Disaster response items, i.e.: First Aid, food stocks, clothing, sleeping arraignments etc. need to be assessed and re-stocked.
- Build a programming station for HTs and the like.
- Build an up-to-date reference and research library for members. Coral all books, manuals and magazines into one area for quick, easy access.
- Assess lay-out and functionality of the Comms. Ctr. over-all.
- Mount plaques and awards on wall.
- Get mini-blinds for windows.
- Inspect windows for double glazing failures and replace.
- Buy new or repair old chairs for 1st and 2nd floors.
- Dispose of desk on 1st floor.

First Floor Projects:

- Set up Legacy/Vintage station museum of sorts.
- Refurbish downstairs radio-shack and bathroom.
- Finish the projects we have started. Finish 1st Floor Renovation.
- Legacy cabinet.
- Paint jobs.
- Refinish 1st floor hardwood floor.
- Paint chimney on 1st floor.
- Organize A/V 19" rack downstairs.
- Fix flooring at doorway entrance.
- Build a rack for folding chairs.
- Create antenna hanging system for 1st floor.

Kitchen:

- Install more shelving in kitchen.
- Renovate plywood cabinet in kitchen.
- Defrost refrigerator.
- Clean out refrigerator.

Second Floor Projects:

- Replace circular florescent lamps on the second-floor. Inner: FT8C9CW Outer: FC12T9/CW/RS.
- Finish 2nd Floor Renovation. Paint jobs.
- Install AC power.
- Rewire 2nd floor for emergency power.
- Put cables in cableways.
- Finish digital rack.
- Organize test area.
- Organize workbench.
- Organize closet.
- Replace burned out light in stairwell.
- Fix lock on 2nd floor door.
- Put Internet access point upstairs.
- Sweep stairs.
- Paint stairs and stairway.
- Assess and remove the pile of stuff blocking the emergency exit at the bottom of the stairway.
- Fix ceiling in 2nd floor bathroom.

Attic Projects:

- Clean out attic.

Basement Projects:

- Repair or replace the dehumidifier in the cellar.
- Replace lights in basement with shop lights.
- Repair water leaks in basement.
- Basement rack for antennas.
- Get seismograph online.
- Put up rack for brooms, rakes, snow shovels on basement stair landing.

Antenna Projects:

- Short-term: re-assess the vertical, repair as needed. Add Radials.
- Move antenna up/down switch to rack. Long-term: re-assess all antenna systems at the Comms. Ctr. including: remote antenna rotator control (web based).
- Replace repeater antennas at Blackburn location.
- Coral all of the extraneous antennas floating around the Comms. Ctr. and get them to an ends.
- Clean up antenna tower.
- Put up 6m and 2m Yagi antennas w/rotator.

Exterior & Grounds Projects:

- Police the outside grounds. Get rid of all metal and “stuff”.
- Outside repairs to siding.
- Re-surface driveway.
- Railing around patio.
- Get picnic tables for front porch.

- Handicap ramp for patio.
- Outside rack for tower sections.
- Get Ms. Elliott to remove fence from our property.
- Fill-in cesspool hole in backyard.
- Remove #6 house number from outside door to basement.
- Build step on roof outside of 2nd floor access door.

General Equipment Projects:

- Grounding for all equipment. Install grounding system for stations.
- Replace the server / computer downstairs with an updated machine.
- Make a functional plan for emergency power at the Comms. Ctr. Include a procedures manual.
- Finalize the emergency repeater at the Comms. Ctr.
- W1RK test equipment room build out plan and implementation.
- Repair the vintage and legacy equipment so it works, or let it go to someone who will / can.
- Expedite the process of deciding what's going to happen to with all of the "stuff" floating around the Comms. Ctr. Purge as needed.
- Finish emergency generator gas modification & find natural gas line.
- Acquire weather station and put online. (Weather Underground?)
- Program scanners for 1st & 2nd floor.
- Check all coax feedlines and inventory.
- Create remote radio system for CAARA members.

EmComm Trailer:

- Finish Emcomm trailer operating station.
- Install carpeting on walls of Emcomm trailer station.
- Install shelving in Emcomm trailer.
- Organize Emcomm trailer.
- Write operations manual for Emcomm trailer.
- Get roof rack for Emcomm trailer for tower and antenna transport.
- Install battery power system in Emcomm trailer for non-generator operation.
- Fix main overhead lights inside Emcomm trailer.
- Create inventory for Emcomm trailer.

Administration Projects:

- Assess project software. Need a stable computer.
- Inventory all equipment (start with radios).
- Document all user equipment at the Comms. Ctr. Digitize all manuals and procedure manuals and guides (formulate new as needed) and make available on-line.
- T-shirts for Field day?
- Assign station captains for station management.
- Develop routine maintenance list for CAARA.
- ebay sales.
- Create capabilities brochure for Emcomm trailer and meet with potential users.
- Submit grant proposal for Emcomm trailer DC power system.
- Submit grant proposal for repeater antenna replacement.
- Finish fundraising for outside building maintenance.
- Organize fundraising committee.

- Develop corporate donor program.
- Sell advertising in newsletter.
- Create linkage with O'Maley School science program.
- Create a "How to use your HT" program.
- Contact non-CAARA hams on Cape Ann.
- Find a Field Day captain for 2015.
- Have fire inspector inspect 6 Stanwood St.
- Find candidates for next term president.

HAM NEWS

UK HAM LOCATES SIGNAL FROM CHINA'S LUNAR ROVER

China's Jade Rabbit Lunar Rover is not dead after all. This after its signal was heard and confirmed by a United Kingdom radio amateur. Bill Pasternak, WA6ITF, is in the newsroom with the latest: -- The Jade Rabbit rover was launched as a part of China's Chang 3 mission to the Moon last December 1st . On December 14th the Chang 3 landed on the Moon with the first signals copied at UHF-Satcom around 17:18 UTC on that same day. The Jade Rabbit Lunar Rover was then deployed with its transmitter activated and signals detected on 8462.080MHz running in a low rate BPSK mode. The rover functioned well until the lunar nighttime set in. The missions Command Control center was expecting the rover to contact Earth on February 12th after it had it endured its second lunar night. Since it did not transmit any signals, the rover was officially declared permanently inoperative. But on that same day a signal from the Jade Rabbit was heard by a ham radio operator in the United Kingdom. Paul Marsh, G7EYT, who also holds the call M0EYT reported detecting the missing rover on 8462.078 MHz. This has brought new hope to the China's Command Control personnel that the overall mission might be saved.

RBDS GETS PRAISE FOR DELIVERING ALERTS

Back here in the United States, a report validates the benefits of using the Radio Broadcast Data System or RBDS to deliver alerts to individuals during emergencies. Congress wanted the Federal Emergency Management Agency to study how RBDS could be used with its Integrated Public Alert and Warning System. FEMA now says to improve the speed and penetration of federal, state and local emergency alerts and warnings, the agency is evaluating RBDS to increase the efficiency and effectiveness of the alerting distribution infrastructure. One of the upshots that could potentially be seen because of the report is finding more cellular telephones to be equipped for FM broadcast reception so that that they can act as RBDS receivers as well. More is on-line at tinyurl.com/RBDS-2014 (RW) **

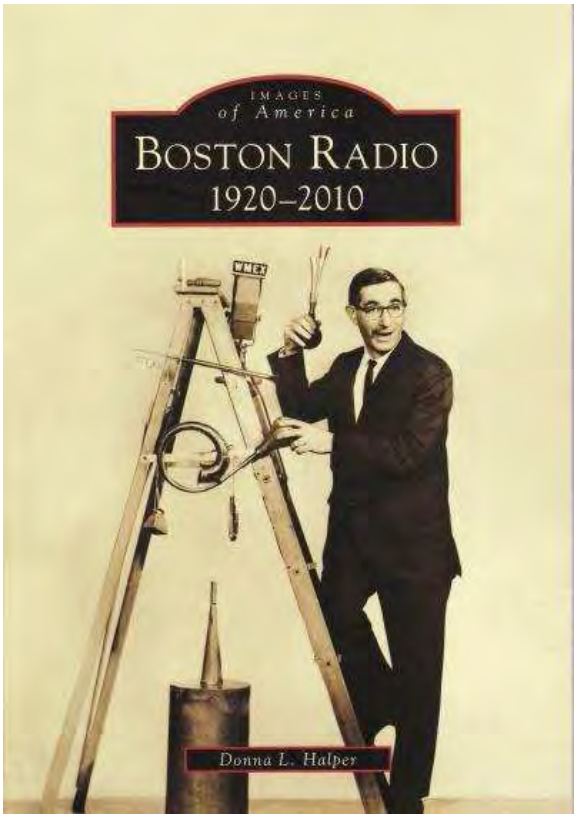
THE SWL SCENE: PIRATE RADIO COMES ALIVE IN SYRIA

Pirate FM transmitters have hit the airwaves in pockets across Syria. WIA newsman VK4LAW has more: -- Radio Watan is but one of more than a dozen opposition radio stations that have sprung up since the start of the revolt against the Syrian president, Bashar al-Assad. The stations are run by young civilian activists who played an important role early in the uprising but have since been targeted by government forces, for airing music and women's voices. The opposition radio stations are the most recent arrivals on Syria's combative news media scene, where parties on both sides try to shape perceptions of a conflict that is conducted largely out of the public eye, because the violence and government restrictions severely limit journalistic access. "It is much cheaper than TV and more accessible to the public because the listener doesn't have to have electricity to listen to you," said Obai Sukar, the director of Radio al- Kul. "Just a small radio with two batteries, and you are on."

FEBRUARY MONTHLY MEETING WAS A HIT!

Donna Halper presented...

The History of Boston Radio



BIOGRAPHY OF DONNA L. HALPER: author, educator, media historian, radio consultant

Donna Halper is a respected and experienced media historian, whose research has resulted in appearances on Chronicle (WCVB, Channel 5 in Boston), Voice of America, PBS/ NewsHour, National Public Radio/Weekend America, New England Cable News, History Channel, ABC Nightline, WBZ Radio (Boston), WGBH-FM (Boston), WBUR-FM (Boston), WRKO (Boston), WATD-FM (Marshfield MA), WIBC (Indianapolis), and WNYC-FM (New York). She has been quoted in a number of newspapers, magazines, books and encyclopedias-she has six essays in the Biographical Encyclopedia of American Radio, about pioneering women and minorities in early radio. Ms. Halper is the author of five books, the most recent of which is "Boston Radio 1920-2010," a history of Boston radio in words and pictures. She also wrote two chapters about baseball history for the 2012 SABR book "Opening Fenway Park in Style: The 1912 World Champion Red Sox." Her other books include "Icons of Talk: The Media Mouths that Changed America," a history of talk shows (2008); and the 2001 book, "Invisible Stars: A Social History of Women in American Broadcasting." Ms. Halper also wrote a chapter for Michael Keith's 2008 book "Radio Cultures"— about how radio brought women's issues into the public sphere. Ms. Halper does free-lance writing for magazines and newspapers; her essays have appeared in both scholarly and mass-appeal publications. She has been a reviewer, fact-checker, and copy editor for encyclopedias, journals, and educational foundations. She has also helped several historical associations to research and write their history. In addition, authors have hired her as a researcher for books they were writing. Among the places where Ms. Halper's work is acknowledged are books about Boston's 1942 Cocoanut Grove fire, the life of journalist Nancy Dickerson, and the Brinks Robbery.

Ms. Halper attended Northeastern University in Boston, where she was the first woman announcer in the school's history, broadcasting a nightly show on the campus radio station beginning in October 1968. She completed a BA (English), M.Ed (Counseling), and MA (English) at Northeastern; she returned to school in 2002 to pursue a PhD in Communication at the University of Massachusetts/ Amherst; she received her doctorate in May 2011, writing her dissertation on how early radio changed American society.

Ms. Halper has had a successful career in broadcasting, including more than 28 years as a radio programming and management consultant in markets of all sizes, both college and commercial stations, all over North America. She has hired and trained staffs, worked with and developed talent, helped to choose or improve formats, conducted music and market research, and helped her client stations to get

better ratings. Prior to becoming a consultant, she spent thirteen years as an announcer, music director and assistant program director in four major markets. In addition to Ms. Halper's long career in both radio and print, she is well-known for discovering the rock group Rush, who dedicated their first two albums to her. She is seen four times in the 2010 documentary about the band, "Beyond the Lighted Stage."

In 2008, Ms. Halper was hired as an Assistant Professor of Communication at Lesley University, Cambridge MA, where she has been helping to build a new media studies program; she also advises the student news-blog, the Lesley Public Post, which she helped to create. In 2012, she was promoted to Associate Professor. Prior to Lesley, she spent 18 years as an instructor at Emerson College in Boston, where she taught in the Journalism Department and in the Institute for Liberal Arts. Her expertise is in training future journalists and broadcasters, as well as in teaching about ethics, media stereotypes, and social history. In 1995, she was named Emerson's Instructor of the Year.

Pizza was served at 7 PM, generously provided by Paul Anderson, KA1GIJ

Since 1984, Ms. Halper has been the advocate for an adult with autism; she has tutored him, and helped him to learn to speak; and along with her husband, she continues to be part of his support system. She has also been a Big Sister and a mentor. In her spare time, Ms. Halper collects stamps, old magazines, post-cards, and books that relate to her research in media history. She continues to do presentations and give talks on such topics as media history, women's history, and popular culture at museums, schools, and historical societies.

In this 1921 photo, we see Eunice Randall, greater Boston's first woman announcer, sitting in the studios of 1XE in 1921. Eunice was not only an announcer: she also read bedtime stories to the children, did the news, gave the police reports of stolen cars and repaired broken equipment. And when guests failed to arrive, she and another staff member sang duets. (Courtesy Eunice Stolecki)

Halper's new book, "Boston Radio, 1920-2010," was released recently by Arcadia Publishing. It's the story of Boston's radio history from the days of 1XE/WGI, one of America's first radio stations. It includes the first station to receive a commercial license, WBZ, the first FM radio network, W1XOJ and W1XER, and one of the first news networks, the Yankee News Service.

Among the people Halper writes about are Arnie "Woo-Woo" Ginsburg, Dick Summer, Dale Dorman, Charles Laquidara, Larry Glick, Arch McDonald, David Brudnoy, Eddie Andelman, Glenn Ordway,Curt Gowdy and "Big Brother" Bob Emery.

Broadcasters with South Shore connections include Jerry Williams, Don Kent, Sherm Feller and Herb Fountaine, longtime news director of WJDA in Quincy.

Halper's last book was "Icons of Talk: The Media Mouths that Changed America," a history of talk shows, published in 2008. She also wrote the 2001 boo "Invisible Stars: A Social History of Women in American Broadcasting." She also contributed a chapter to "Radio Cultures," a 2008 book by Michael Keith about how radio brought women's issues into the public sphere.

HISTORY OF THE CAR RADIO

submitted by CAARA'S Rob Claypool

Seems like cars have always had radios, but they didn't. Here's the story:

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset.
It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.
Lear and Wavering liked the idea. Both men had tinkered with radios (Lear served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car.
But it wasn't easy: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running.
One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago.
There they met Paul Galvin, owner of Galvin Manufacturing Corporation.
He made a product called a "battery eliminator", a device that allowed battery-powered radios to run on household AC current.
But as more homes were wired for electricity, more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop inGalvin's factory, and when they perfected their first radio, they installed it in his Studebaker.
Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard.
Good idea, but it didn't work –; Half an hour after the installation, the banker's Packard caught on fire. (They

didn’t get the loan.)
Galvin didn’t give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention.
Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioneers could hear it.
That idea worked — He got enough orders to put the radio into production.

WHAT’S IN A NAME
That first production model was called the 5T71.
Galvin decided he needed to come up with something a little catchier.
In those days many companies in the phonograph and radio businesses used the suffix “ola” for their names - *Radiola, Columbiola, and Victrola*were three of the biggest.
Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the*Motorola*.
But even with the name change, the radio still had problems:
When Motorola went on sale in 1930, it cost about $110 uninstalled, at a time when you could buy a brand-new car for $650, and the country was sliding into the Great Depression.
(By that measure, a radio for a new car would cost about $3,000 today.)
In 1930, it took two men several days to put in a car radio —
The dashboard had to be taken apart so that the receiver and a single speaker could be installed,and the ceiling had to be cut open to install the antenna.
These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them.
The installation manual had eight complete diagrams and 28 pages of instructions. Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn’t
have been easy in the best of times, let alone during the Great Depression –;


ELMER WAVERING

Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola’s pre-installed at the factory.
In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company
to sell and install them in its chain of tire stores.
By then the price of the radio, with installation included, had dropped to $55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to “Motorola” in 1947.)
In the meantime, Galvin continued to develop new uses for car radios.
In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts.
In 1940 he developed the first handheld two-way radio — The Handy-Talkie –;
for the U. S. Army.

A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II.
In 1947 they came out with the first television for under $200.
In 1956 the company introduced the world’s first pager; in 1969 came the radio and television equipment that was used to televise Neil Armstrong’s first steps on the Moon.

In 1973 it invented the world's first handheld cellular phone.
Today Motorola is one of the largest cell phone manufacturers in the world. And it all started with the car radio.

WHATEVER HAPPENED TO the two men who installed the first radio in Paul Galvin's car?
Elmer Wavering and William Lear, ended up taking very different paths in life.
Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention lead to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, etc.

DO SALMON TRAVEL MAGNETIC LINES OF FORCE ?

A possible answer to the question of how young salmon with no migratory experience somehow voyage through ocean waters to wind up at specific feeding grounds that are hundreds or even thousands of miles away from where they were hatched? It turns out that they may be following magnetic lines of force.

Researchers have long suspected that many animals that travel great distances to wind up at particular spots visited by their ancestors may be able to sense the Earth's magnetic fields. The ability has since been found in a variety of creatures including certain migratory birds. Even more remarkable is that many animals seem to use it to navigate with no previous experience, like the Chinook salmon.

To figure out whether this species of salmon are also born with this ability, a research team lead by Oregon State University tested the abilities of young Chinook salmon that were less than 1 year old and hadn't yet started their seaward journey. To accomplish this, the researchers placed young fish in barrels surrounded with coils of wire and exposed them to a simulation of the northern magnetic field. In response, the salmon turned south-southwest.

Conversely, when they exposed them to a simulation of the southern magnetic field, the salmon turned north-northeast. So as to make certain their results were correct, the researchers then subjected the salmon to a northern intensity with a southern inclination field and a southern intensity with the northern inclination field. In both cases the salmon chose no particular direction. The scientists theorize that this was the result of the latter aspect of the experiment not fitting anywhere in the salmon's internal magnetic map.

The researcher's findings were published in a recent edition of the Journal Current Biology. More is on line at tinyurl.com/salmon-follow-magnetic-fields (The Guardian, Journal of Biology)

DOD RELEASES ENTIRE ELECTROMAGNETIC SPECTRUM STRATEGY

The United States Department of Defense has released its complete 2013 Electromagnetic Spectrum Strategy. This to increase available spectrum in order to meet growing demand from the commercial wireless industry. The release follows the release of a memorandum issued in 2010 by President Obama titled Unleashing the Wireless Broadband Revolution. In it the Department of Defense is required to make available 500 MHz of spectrum for commercial use by 2020.

It should be noted that a good number of amateur UHF and Microwave spectrum allocations are shared with the Department of Defense but at this point in time its not known what impact, if any, the release of the required 500 MHz could have on future ham radio operations.

You can read the entire Department of Defense Electromagnetic Spectrum Strategy document on line in PDF format at http://www.defense.gov/news/dodspectrumstrategy.pdf