CAARA NEWS

Cape Ann Amateur Radio Association
February 2018 Edition

PRESIDENT'S COLUMN

by Jon- K1TP

I think the move to Saturday for the club member/lunch meetings turned out to be a good idea and has been well received so far. We had a good time and a delicious lunch served at the January meeting and a few nice looking J-Pole antennas were constructed and taken home by members. Please stop by Saturday, February 10th at noon for lunch at the club followed by a member meet and greet.

We had a little water problem at the club after all the frigid days. We turned the water off and had no leaks but found that one of the water drains rusted out and now leaks. We are working on the problem but the club is still open for use. Just do not use the second floor sink!

A donation to the club of an Earth-Moon bounce radio station has been offered to the club complete with antennas, etc. if we meet certain criteria. There lies the problem! It would need a club member to come forward and champion the project and provide educational opportunities for all at the club and community. As of this time I have no response from members and feel we will have to say no to the offer. If you have an interest, please send me an email.

ENJOY LUNCH AT THE CLUB FEBRUARY 10th NOON

It is a sad thing but I must report we are losing two beloved and long time members due to a relocation. Curtis and Linda Wright are moving to NH. You will be greatly missed and your past efforts will never be forgotten here at CAARA. Curtis will continue to send us stories for the newsletter. Linda is our Club Clerk so we have a very important position to fill ASAP….anyone want to volunteer and learn on the job?

We have been asked to provide communications for a new race which is going to be on May 20th and will be run on the trails of Dogtown. This should be a real exciting adventure for a few members who will be stationed in the woods and perhaps riding on mountain bikes! More info in the near future, awaiting city approval for the use of Dogtown.

INFORMATION DESK

By Dean- KB1PGH

As you may know by now I`m a big advocate of hams embracing the attitude of mentoring and elmering themselves. For this months column I will show you a resource that every ham should have whether your new to the hobby or not. If you just got your Tech license

I would highly recommend purchasing the 2018 ARRL Handbook for radio communications. Of course the ARRL comes out with a new handbook every year but this one has been revised and has new content on software defined radios and digital signal processing. It also has new information on station grounding,bonding and tower safety. The handbook is a great reference for radio theory,antennas and feedlines and propagation. If you like to do projects and make stuff there are many kit building projects in this book as well. The softcover version of the handbook is $49.95 and is worth every penny. The book has 1280 pages and comes with a downloadable version for your computer. You can order one today at www.arrl.org .

Now continuing on my discussions on transceiver specs to take into consideration when buying your next HF Rig lets take a look at "Phase Noise".While not getting

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

Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the ATT cell tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations.

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

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

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

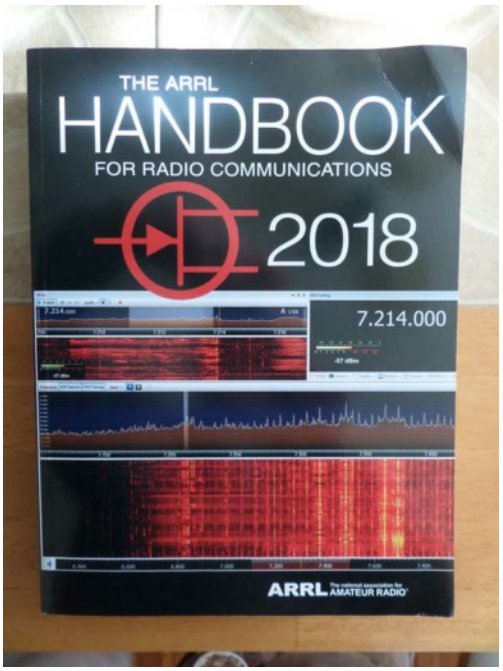
Amateur radio exams are held on the second Sunday of each month at 10:00 AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. There is no pre-registration necessary. Contact the head of our VE team Rick Maybury if you have any questions about monthly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

Monthly member meetings are held on the second Saturday of each month at noon except for July and August.

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

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

into the details,"Phase Noise" is a factor where noise is generated inside your transceiver due to all the internal electronic components. This happens especially in the receiver section where the local oscillators and mixers are in super heterodyne receivers. So what this means is that if your radio creates lot of phase noise then both your receive signal and transmit signal will sound extra noisy and splatter the bands. This is why some HF rigs are terrible for field day since the antennas are so close and they pick up a lot of phase noise from close by transceivers which desensitizes all the other radios around it.



There`s no real fix for phase noise in a radio other than not to purchase one that has phase noise specs or the newer software defined radios like the Icom 7300 have lower phase noise components to them. Moving on ,there are two ARRL events coming up in February. The first is the School club round up on Feb 12 through the 16th which promotes elementary through college kids to get on the air and them the CW DX contest will be held on Feb 17th and the 18th .

Common Mode Chokes Part 3

This will be the last in a series of common mode chokes that you can use to reduce or eliminate RFI and EMI in your shack.For this month I will show you a CMC that Jon K1TP gave me to test out. If you remember the choke I showed you last month could be placed right at your antenna but if you can`t get to the top of your antenna you could try a model like this that can be plugged in right at the antenna jack of your rig.

This one also can be made as well instead of purchasing one,You can "Roll your Own" chokes as well just by wrapping the coax around a couple of them. If you are interested in making your own Common Mode Chokes such as this you can find RFI kits for around $25.00 at

www.myantennas.com . Just buy the kit that has the cores and buy a length of RG 58 coax and just wrap the coax around the core a bunch of times so it has enough impedance and your good to go. Of course you can also use a bunch of snap on ferrite beads to the coax leading into your rig to try to eliminate RFI and EMI.

This Is The February CAARA Net Control lineup.

The 4th Stan- W4HIX
The 11th Hank- W4RIG
The 18th Evan- KC1DPX
The 25th Gardi- KA1BTK

ENJOY BREAKFAST AT THE CLUB SUNDAY, FEBRUARY 4th AND FEBRUARY 18th FROM 9-11 am

CAPE ANN AMATEUR RADIO ASSOCIATION

6 Stanwood Street
Gloucester, MA 01930

978-282-7645

WWW.CAARA.NET

"Serving the community for 45 years"

Repeaters on 145.130
224.900 & 443.700

February 2018

M	T	W	T	F	S	S
			1	2	3	4 Scholarship Breakfast 9-11am
5	6 OPEN HOUSE 5-8pm	7	8	9	10 BOD 11am Member Lunch Meet 12am	11 VE TEST 9-11am
12	13 OPEN HOUSE 5-8pm	14	15	16	17	18 Club Benefit Breakfast 9-11am
19	20 OPEN HOUSE 5-8pm	21	22	23	24	25
26	27 OPEN HOUSE 5-8pm	28				

Join us weekly on the 2 meter Sunday Evening Net at 9pm

FEBRUARY LUNCH/MEMBER MEETING

The February Member Meeting was held on Saturday, February 13 at high noon. If you have forgotten, member meetings are now on the second Saturday of each month at noontime. The club serves lunch first and then has the meeting, this month was the actual constructing of a J-Pole antenna by Chris - K1TAT. The meal was cooked by Bill- W1WMM and was great! Next month is rumored to be homemade spaghetti and meatballs with garlic bread.

Top: Cook Bill- W1WMM and below: our beloved dish dog, Dave- N1CDL

Above: Jake- W1lDL and Hank- W4RIG enjoying the hot dogs and beans, brown bread, and cold slaw.

A good time was had by all and we look forward to the February meeting with lunch included. I believe we will be doing a demo on how to attach PL- 259's with a commercial crimper on RG -8 and RG -213 cable. I also believe we will be making patch cords from RG 58u cable and will demo the correct way to solder them.

During these meetings you may operate any of the club equipment and get on the air, use the test gear, build a kit, whatever floats your boat!

Run Silent, Run Deep, No Sleep

By Curtis- AA3JE

Some months ago SHE WHO MUST BE OBEYED began looking at Real Estate advertisements. It was rather a fun game, till she found a house that she liked.

Now I am happy most anywhere, but have learned that women care deeply about houses and such matters.

So, in the fullness of time, we bought a house in the woods in New Hampshire.

And after I had run about 5 cubic yards of boxes up there we had enough to spend a weekend in our new palace.

Now it's cold in New Hampshire, especially the northern part, and the house was beautiful, a snow covered retreat nestled in the mountains.

So after I hauled the car full of stuff that she needs for a week-end into the place, (I require a clean shirt and undies), I sat down to assemble the bed.

Unfortunately, I had not taken pictures of how it went together, assuming "how hard can it be?"

The answer is "Maddening".

After an hour, and re-activation of a hernia I thought I had healed long ago, we got the bed assembled, covered, pillows (4) fluffed, and I went out for pizza. (8 miles away).

Humans fed, dogs fed, we enjoyed the unseasonably warm weather on the porch.

Going to bed was delayed, as a confused blue-bottle fly, of which my dog is the sworn enemy, hatched out and buzzed the bedroom, till smashed with a copy of my Korean textbook. (First good use I have had of that thing).

So we laid down, to a gentle slumber.

"BAWHOOOOM!"

"WHAT WAS THAT?" said SHE.

"I have no idea."

So we laid out heads down.

"BAWHOOOOM!"

Now any husband knows what happens next. Clad in robe, slippers, and with a flashlight, I went out to investigate. In the melting snow.

What I saw was that the snow, melting, was sliding down the roof, and when it stuck out too far, it fell, making a noise like an enemy depth charge going off 40 meters to starboard. Complete with shaking and tinkling noises.

"Ice melting. It will all fall soon." I said.

Silence.

"BAWHOOOOM!"

Silence.

"BAWHOOOOM!"

So, clad as before, except with snow boots, I circled the house knocking all the overhanging snow down.

Afterwards, blessed silence for a half hour. I fell asleep, only to be roused by a gentle and loving elbow in the ribs.

"What is it, dearest."

"It's back."

"BAWHOOOOM!"

Later I checked with my local contact, how to deal with this.

"Yah, dem metal roofs unload like dat. You needs to get snow guards. They sell em over in St. Johnsbury. Can't put em up till spring."

"What do I do in the meantime?"

"Dat will all fall down after 1-2 warm days."

"During those days?"

"Local inn's pretty nice."

The next morning, as I spread traction sand on the skating rink that had been a driveway the night before, I realized cold country living would take getting used to.

"BAWHOOOOM"

ARRL Hudson Division Director Promotes Amateur Radio Parity Act Before Senate Committee

ARRL Hudson Division Director Mike Lisenco, N2YBB, testified Thursday (January 25) before a session of the Senate Committee on Commerce, Science and Transportation regarding Amateur Radio's readiness to respond in an emergency. The session, "This is not a Drill: An Examination of Emergency Alert Systems," was called in the wake of an incoming missile warning erroneously released in Hawaii earlier this month. Lisenco said Amateur Radio played a role not only in responding to the warning but in disseminating word that the missile alert had been issued by mistake.

Lisenco said the Hawaii Radio Amateur Civil Emergency Service (RACES) activated on UHF and via a VHF inter-island repeater network, and amateur stations monitored the alert and cancellation activity, which came less than 1 day after RACES had completed an Amateur Radio communication exercise at the State Emergency Operations Center (EOC). In his written testimony, Lisenco recounted that the situation after the missile warning in Hawaii was chaotic.

"The phone lines into the State EOC were soon overwhelmed and congested, and the website was overwhelmed with public inquiries," he said. Lisenco said that in such situations, Amateur Radio volunteers typically are present at state or county EOCs and at the State Warning Point, the Hawaii Emergency Management Agency. He pointed out that the cancellation of the false warning circulated on various information outlets 13 minutes after the missile warning went out.

"That was picked up and relayed through the Amateur Radio networks," he told the Committee in written testimony. "The cellphone alert system could not be used for the cancellation notice until prior FEMA approval was obtained. Once that was obtained, the cancellation alert went out to the cellphone network after 38 minutes from the initial alert."

"Many people had received the warning first on their cell phones through the Wireless Emergency Alert (WEA) system, but a cancellation on that same system was substantially delayed," Lisenco said. "The result was that Amateur Radio networks disseminated validated cancellation information long before the cellular networks were able to do so."

Lisenco took the opportunity to address how private land-use regulations can preclude Amateur Radio disaster response capabilities.

"There is no substitute for the ready availability of a residential Amateur Radio station in daily operation from a licensee's residence," he said. "The licensee cannot be expected to have the ability to communicate into or from a disaster site unless he or she has a station with an effective outdoor antenna capable of operation on multiple frequency bands at once, which is ready to be pressed into service from the licensee's residence at a moment's notice."

Lisenco reminded the panel members that the Amateur Radio Parity Act of 2017 is now pending before the Committee. "[Senate Bill 1534] is a balanced, completely bipartisan bill that would fully protect both the entitlement of Amateur Radio volunteers to…provide emergency, disaster relief and public service communications, while…protecting the aesthetic concerns and the jurisdiction of homeowners' associations," Lisenco said in his written remarks, noting that the bill is unopposed. "We are in desperate need of this legislation, and without it, the volunteer emergency communications services provided by

Amateur Radio will be precluded. We urge the Committee in the strongest terms to please approve and send this legislation forward without delay," Lisenco said. Mississippi Senator Roger Wicker, a co-sponsor with Connecticut Senator Richard Blumenthal, of the Amateur Radio Parity Act, attended the hearing. Responding to a question from Wicker at the hearing, Lisenco pointed out that an early US Coast Guard warning cancellation notice was relayed to Amateur Radio networks and disseminated quickly, while the State Warning Point waited to obtain FEMA authorization to rescind the warning via cellular phones.

As a result, Amateur Radio networks were able to disseminate validated cancellation information long before the cellular networks were able to do so. Wicker issued a statement noting Lisenco's testimony and posted a video clip of his exchange with Lisenco. South Dakota Senator John Thune, who chairs the Senate Committee on Commerce, Science, and Transportation, convened the hearing, called to "examine policy concerns surrounding the use and effectiveness of Emergency Alert Systems including Wireless Emergency Alerts, as well as recent system failures, including but not limited to the mistaken missile alert in Hawaii." **ARRL**

China Students' "Zhou Enlai" CubeSat Launches with Ham Radio Payload On Board

Launched on January 19, China's "Zhou Enlai" CubeSat is that country's first to involve primary and middle school students. Named in honor of the first Premier of the People's Republic of China, Zhou Enlai, the CubeSat was developed in Huai'an Youth Comprehensive Development Base in Jiangsu Province. Zhou Enlai was born in Huai'an. The 2-kg, 2U CubeSat carries an Amateur Radio FM transponder and has SSTV capability, in addition to a high-definition optical camera. An SSTV beacon will post date, time, temperature, and location information on an SSTV frame. The launch was the 100th orbital launch attempt from the Jiuquan Satellite Launch Center.

"A scientific satellite like this is like a teacher in space, carrying cameras or spectroscopes to study the upper atmosphere or to shoot space pictures of the stars. Students can grasp the mystery of the universe through the messages transmitted by the teacher," said Zhang Xiang, chief designer of the satellite and a professor with Nanjing University of Science and Engineering. The Amateur Radio transponder has a downlink at 436.950 MHz, and an uplink at 145.930 MHz. Telemetry will be 9.6 k BPSK on 437.350 MHz.

The students who participated in the project joined the development and ground-based simulation performance of the satellite in their spare time, and learned to assemble and practice voice data transfer and telecommunication applications. The project was approved in 2016. The administration office of Huai'an Youth Comprehensive Development Base is the main organizer of the project.

A **delegation** from the satellite development student team in Huai'an was at the Jiuquan Satellite Launch Center for the launch.

On the same launch vehicle were the Xiaoxiang-2 (TY-2) and Yizhuang QuanTuTong-1 (QTT 1/TY-6) CubeSats, developed by TianYi Research Institute in Changsha, Hunan Province. These 6U CubeSats will carry out Amateur Radio HF/VHF/UHF re-transmitting experiments in narrowband modes. TY-2 carries four experiments, testing optical fiber sensing technology, space radio software, and image stabilization; TY-6 carries navigation and communication payloads (including AIS). TY2 and TY6 both operate in the 435, 2400, 5650 and 5830-MHz Amateur Satellite bands.

The TY-2 downlink is 435.350 MHz, and the TY-6 downlink is 436.100 MHz. They are part of a constellation of CubeSats, TY-2 through TY-6, which will also carry out inter-satellite communication experiments that include Amateur Radio, Li-Fi high-speed LED digital downlink, and CW lamp signal communication experiments. Downlinks are on 70 centimeters using 9.6 kbps GMSK and on 2.4 GHz and 5.8 GHz using 5 Mbps OFDM.

The IARU Amateur Satellite Frequency Coordination page has details on frequencies. — *Thanks to AMSAT-UK*

Do It Yourself* HF Tuner Kit! 1.8-30MHz, 300W, cross-needle meter, MFJ Versa Tuner ...$119.00...who knew they sold kits?

Ever wondered how a manual tuner works? Miss the days when you could buy Do-It-Yourself kits to build cool electronics for amateur radio?

This MFJ-941EK Kit is the MFJ-941E Versa Tuner complete parts list BEFORE FINAL ASSEMBLY!!

This makes an excellent intermediate project for a new ham, or a great way for an experienced Amateur to save money by completing the final assembly himself (/herself)!

** Some Assembly Required **

On the tuner, once it's built:

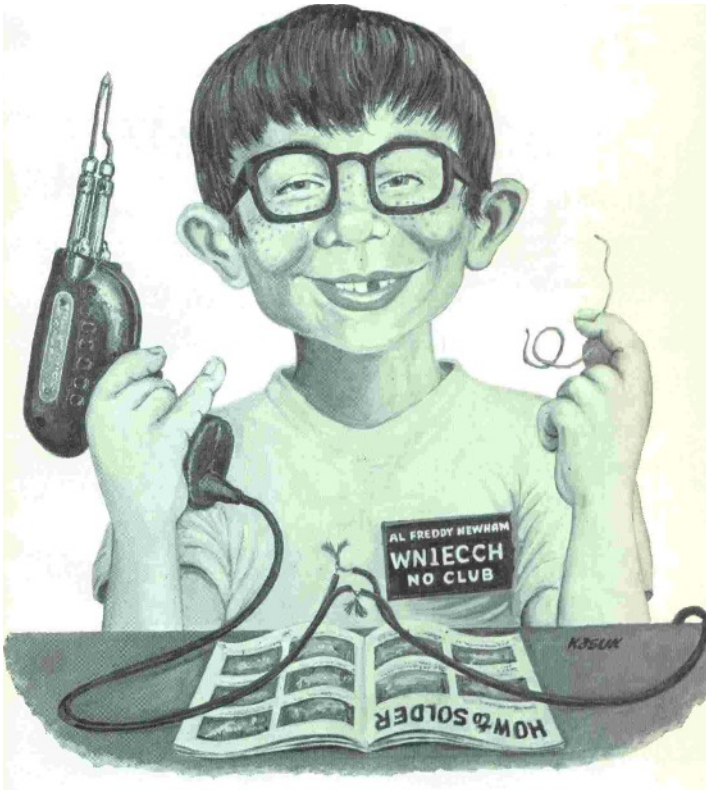
The MFJ-941E gives you a 300 Watt antenna tuner that covers everything from 1.8 - 30 MHz -- plus you get a lighted Cross-Needle meter with on/off switch, antenna switch and a 4:1 balun! (The light

On Saturday, January 27th I was on the repeater talking to Bill- W1WMM when an old friend jumped on and said he was over at Stage Fort Park operating Winter Field Day, so I drove over to say hello and take a photo. They were running a Yaesu FT-897 with a battery and wire antenna 15 feet off the ground. They were making contacts stateside and overseas like crazy with great reports. Ham Radio is alive, Paul- W1DUD on the left got his license at CAARA. A Lynn resident, I hope he joins the club after my recruitment talk!

THE HELP DESK

The Art of Soldering

Soldering is used in nearly every phase of electronic construction. A soldering tool must be hot enough to do the job and lightweight enough for agility and comfort. A 100-W soldering gun is overkill for printed-circuit work, for example. A temperature-controlled iron works well, although the cost is not justified for occasional projects. Get an iron with a small conical or chisel tip. You may need an assortment of soldering irons to do a wide variety of soldering tasks. They range in size from a small 25-W iron for delicate printed-circuit work to larger 100 to1 00-W sizes used to solder large surfaces. Several manufacturers also sell soldering guns. Small "pencil" butane torches are also available, with optional soldering-iron tips. Keep soldering tools in good condition by keeping the tips well tinned with solder. Do not run them at full temperature for long periods when not in use. After each period of use, remove the tip and clean off any scale that may have accumulated. Clean an oxidized tip by dipping the hot tip in sal ammoniac (ammonium chloride) and then wiping it clean with a rag. Sal ammoniac is somewhat corrosive, so if you don't wipe the tip thoroughly, it can contaminate electronic soldering. f a copper tip becomes pitted, file it smooth and bright and then tin it immediately with solder. Modern soldering iron tips are nickel or iron clad and should not be filed.



The secret of good soldering is to use the right amount of heat. Many people who have not soldered before use too little heat, dabbing at the joint to be soldered and making little solder blobs that cause unintended short circuits. The secret of good soldering is to use the right amount of heat. Many people who have not soldered before use too little heat, dabbing at the joint to be soldered and making little solder blobs that cause unintended short circuits.

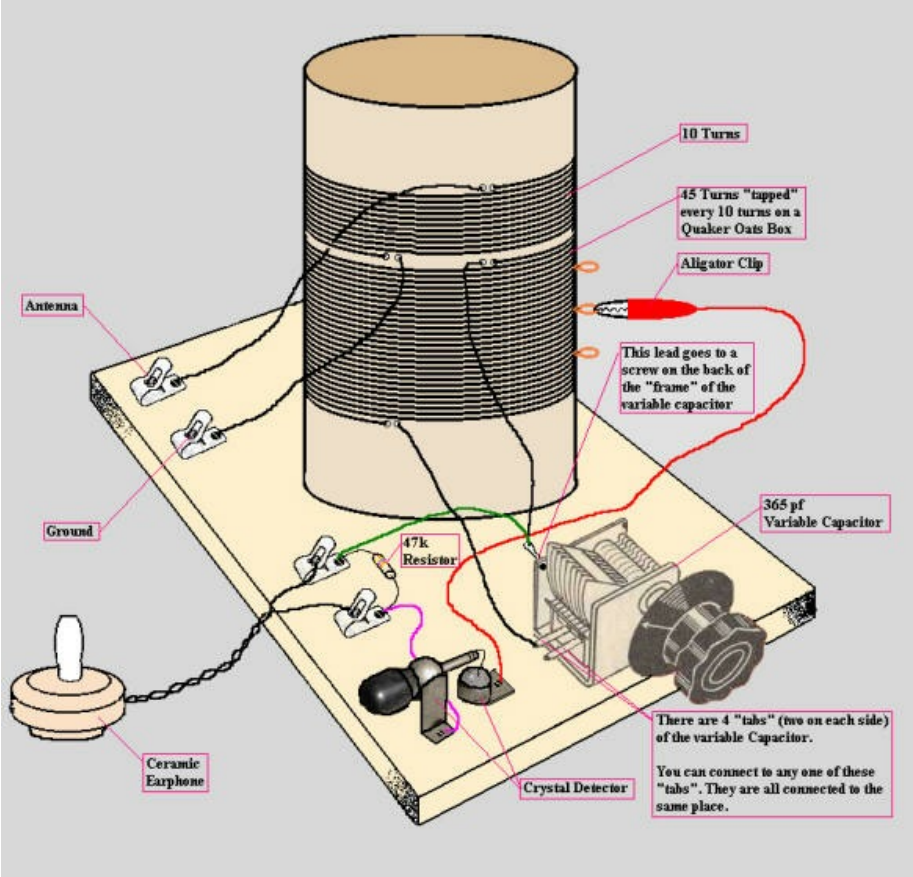
Solders have different melting points, depending on the ratio of tin to lead. Tin melts at 450°F and lead at 621°F. Solder made from 63% tin and 37% lead melts at 361°F, the lowest melting point for a tin and lead mixture. Called 63-37 (or eutectic), this type of solder also provides the most rapid solid- to-liquid transition and the best stress resistance. Solders made with different lead/tin ratios have a plastic state at some temperatures. If the solder is deformed while it is in the plastic state, the deformation remains when the solder freezes into the solid state. Any stress or motion applied to "plastic solder" causes a poor solder joint. Never use acid-core solder for electrical work. It should be used only for plumbing or chassis work. For circuit construction, only use fluxes or solder-flux combinations that are labeled for electronic soldering.

The resin or the acid is a flux. Flux removes oxide by suspending it in solution and floating it to the top. Flux is not a cleaning agent! Always clean the work before soldering. Flux is not a part of a soldered connection—it merely aids the soldering process. After soldering, remove any remaining flux. Resin flux can be removed with isopropyl or denatured alcohol. A cotton swab is a good tool for applying the alcohol and scrubbing the excess flux away. Commercial flux-removal sprays are available at most electronic-part distributors.

VINTAGE CRYSTAL RADIO

How did wireless come about? At the turn of the 20th century, an American scientist, Greenleaf Whittier Pickard, found that a number of naturally occurring crystalline minerals could be used to detect radio signals. The detection occurs at the contact point between the crystal and the tip of a piece of wire. Radios employing this kind of detector became known as *crystal radios*. In the typical early radio-wave crystal detector, the crystal rock was fixed into a brass cup and the radio operator found the loudest signal by touching the wire, called a *cat's whisker*, to various points on the surface of the crystal.

In the early days of radio, people built and used simple and inexpensive crystal radio sets that worked without electrical power from wall sockets or batteries, and this technology was known as *wireless*. Even after vacuum-tube radios came into widespread use following World War I, crystal radios remained popular, especially among beginning amateur radio enthusiasts, boy scouts, and school kids, who continued to build crystal radios as their introduction to the field of communications.



During the Great Depression, a perfectly workable crystal radio detector could be constructed from a five-cent piece of galena crystal and the wire from a safety pin, and building and using homemade crystal sets brought endless hours of enjoyment to children of the Great Depression. After the detector was connected to iron bedsprings (which doubled as an antenna) and grounded to household cold-water pipes, a youngster needed only inexpensive headphones to bring in the world of radio—all the power needed to run the crystal set came from the 'air.' Later, GIs of World War II constructed similar wireless radios from rusty razor blades and pencil lead, the iron oxide crystals of the rust replacing the galena crystal and the graphite of the pencil lead substituting for the safety-pin 'wire.' These crystal radios were known as *foxhole radios.*
Over the years, fascination with crystal radio building has never died, perhaps because the technical achievements of the communication media cannot dim the enchanting simplicity of the crystal radio in its demonstration of the wonder that radio really is.

I have been trying to get one of my grand kids interested in radio and thought this would be a good project. I have all the parts except the crystal earphone. I gave this some thought and will throw the idea out to you.

Why don't we put together a series of experiments with parts we have in abundance at the club that demonstrate series and parallel circuits, wiring up LED's, switches and relays, using a simple VOM, soldering, tesla coil, etc.

Develop a hands on curriculum that I would write up and offer to the local Cub Scouts and Boy Scouts…**WHAT DO YOU THINK? WOULD YOU BE WILING TO HELP ME DO THIS AT THE CLUB?**

We talk a big storm up about getting youth in ham radio, let's see if I get any volunteers.

3Y0Z Bouvet Island Team Has Some 600 Nautical Miles to Go

The **3Y0Z** DXpedition, now on board the *Betanzos* en route to Bouvet Island, the third most-wanted DXCC entity (now behind Kosovo and North Korea), is still some 600 nautical miles from its destination. The DXpedition had been hoping to be up and running by this week.

"We had another night of rocking and rolling," team leader Ralph Fedor, K0IR, reported today. "A strong southwesterly wind produced high following seas, resulting in the stern of the ship rising on the approaching wave or swell, the ship surfing down the front of the wave, and the bow plunging into the wave ahead of it. The change in motion produced a change in the migratory pattern of gear and furniture, but the chaotic end results were similar to our last rough ride. Entropy exists."

Fedor said over the weekend that the team had not restored its maritime mobile stations, due to difficulty in securing the equipment to prevent damage.
The *Betanzos* is moving at nearly 9 knots, which Fedor said was a compromise between creature comfort and structural stresses and getting to Bouvet. Team leaders have been working out flight sequencing to transport gear from the *Betanzos* to Bouvet and met with the helicopter pilots over the weekend.

"We have a lot of 'stuff' to get ashore as fast as possible

Space funeral startup to launch ashes into orbit on SpaceX rocket

A startup planning to launch dead people's ashes into orbit has announced that its first launch will be on board one of Elon Musk's SpaceX rockets.

Elysium Space, which describes itself as a "memorial spaceflight" company, will send its cargo up as part of a Spaceflight rideshare mission on a SpaceX Falcon 9.

"We are honored to assist families in achieving their dreams, riding on one of the greatest rockets in the world," said Thomas Civeit, founder and CEO of Elysium Space. "This historical launch provides the perfect conditions to make this memorial spaceflight an exceptionally meaningful experience for all participants."

The startup claims to already have 100 bookings for its inaugural Elysium Star II mission—among them military veterans and aerospace enthusiasts - with reservations starting at $2,490.

Read the full article:
http://www.newsweek.com/space-funeral-ashes-orbit-elysium-spacex-rocket-610676

Secretive "Numbers Stations" Persist on HF

For many years, unidentified radio broadcasts have been transmitting coded messages, using numbers, such as "6-7-9-2-6. 5-6-9-9-0." Even today, tuning across the HF spectrum typically will yield a "numbers station," a mechanical-sounding voice (male or female) methodically announcing groups of single-digit numbers for minutes on end. **According to *Radio World***, you may have tuned into a spy agency's numbers station transmitting coded instructions to their minions worldwide. Shades of "The Americans" TV spy drama, where characters routinely receive coded messages via radio.

Numbers station transmissions typically consist of a voice "reading out strings of seemingly random numbers," explained Lewis Bush, author of *Shadows of the State*, a new history of numbers stations. "These are sometimes accompanied by music, tones or other sound effects," he said. Paul Beaumont, an associate editor of ***Eye Spy Intelligence Magazine***, a publication dedicated to espionage and intelligence, is quoted in the *Radio World* article as saying, "Voice (numbers) stations are known to be spy messages."

The article said that one of the best-known numbers stations was "The Lincolnshire Poacher," so called due to its use of "The Lincolnshire Poacher" folk song played on a pipe organ as an identifier. Radio amateurs used direction-finding equipment to pin down the station's eventual location to an RAF base on Cyprus, the article said.

Do a search for number stations on the web and you will find lots of interesting articles.

Elon Musk's SpaceX will launch a sculpture so we can all see art in space

For two months, the night sky will also be an art museum. The Nevada Museum of Art and artist Trevor Paglen will be launching a 100-foot-long satellite into space in mid-2018, and people around the world will be able to see it for themselves whether they have a telescope or not. The heavens-bound artwork will launch on a rocket owned by Elon Musk's SpaceX company.

The sculpture, called "Orbital Reflector," is expected to orbit the Earth about once every 90 minutes. "At least in North America, we know that we'll be able to see it about four times in a night," Nevada Museum of Art communications director Amanda Horn told Newsweek. It will only be visible when the sun reflects off the balloon-like diamond for a few hours immediately after dusk and before dawn.

Eventually, the satellite, which is made by Global Western, will fall out of orbit and burn up in the atmosphere.

http://www.newsweek.com/elon-musk-spacex-launch-sculpture-art-space-674609

Project Goodwill Kosovo" Celebrating Independence and New DXCC Status

A new on-the-air team is taking the reins at Z60A, as "Project Goodwill Kosovo" moves into its second week, with only 2 weeks to go until the actual 10th anniversary of Kosovo's independence. Hams from 10 countries will take part in the Project's current phase. Z60A has been on the air since January 21, steadily winnowing down demand for Kosovo as a DXCC entity; the republic jumped to the top of Club Log's **DXCC Most Wanted List** after attaining DXCC status, putting it ahead of North Korea and Bouvet Island.
The Z60A operators are operating split, UP/DN from their transmit frequency. Pay attention to operators' instructions.
A recent reception celebrated Kosovo's new DXCC status, with remarks by IARU member society **SHRAK** President Vjollca Belegu Caka, Z61VB; the Chair of Kosovo's telecommunications regulator (ARKEP) Kreshnik Gashi, ARRL Honorary Vice President Jim Fenstermaker, K9JF; IARU Region 1 Secretary Hans Blondeel Timmerman, PB2T, and Project Goodwill Kosovo Coordinator Martti Laine, OH2BH.
During the celebration, some 40,000 contacts have been logged so far at Z60A, with operators focusing on Asia and North America. A LoTW upload and early QSL card are under consideration.
Fenstermaker said this week that noise continues to be an issue. He's flying back to the US later this week so he can add Z60A to his own DXCC tally.

About School Club Roundup

Winter/Spring Term: February 12-16, 2018

Objective: To exchange QSO information with club stations that are part of an elementary, middle, high school or college. Non-school clubs and individuals are encouraged to participate.
Sponsored by the ARRL, its Hudson Division Education Task Force and and the Long Island Mobile Amateur Radio Club (LIMARC) to foster contacts with and among school radio clubs.

Award certificates will be issued for the following US and DX categories:
Schools: Elementary, Middle/Intermediate/Junior High School, High School and College/University

See the ARRL website for full details.

NASA TV to air Russian spacewalk at the International Space Station

Two veteran Russian cosmonaut spacewalkers will venture outside the International Space Station on Friday, Feb. 2, for a planned 6.5-hour station servicing session. Live coverage of the spacewalk will air on NASA Television and the agency's website beginning at 9:45 a.m. EST.

Expedition 54 Commander Alexander Misurkin and Flight Engineer Anton Shkaplerov of the Russian space agency Roscosmos are set to float out of the space station's Pirs docking compartment airlock in Russian Orlan spacesuits at 10:34 a.m.

Misurkin and Shkaplerov's primary objectives during the spacewalk will be to remove and jettison an electronics box for a high-gain communications antenna on the Zvezda service module and install an upgraded electronics box to communication between Russian flight controllers and the Russian modules of the orbital outpost. The cosmonauts also will take detailed photos of the exterior of the Russian modules and retrieve experiments housed on Zvezda's hull.

The Russian spacewalk will be the fourth in Misurkin's career and the second for Shkaplerov, as well as the 207th spacewalk in support of space station assembly and maintenance. Both of their suits will be marked with blue stripes.

Anticipated New Building Won't Be Ready for Hamvention 2018, but Flea Market Could Expand

Due to circumstances beyond their control, Hamvention® 2018 organizers reluctantly are walking back an earlier announcement that a new building would be available for this year's event at the Greene County Fairgrounds and Expo Center in Xenia, Ohio.

"Despite all of the best efforts and intentions by Greene County, the Greene County Agricultural Society, and Hamvention, we have learned the anticipated new building will not be constructed in time for Hamvention 2018," Hamvention General Chair Ron Cramer, KD8ENJ, said. "The prefab sections bid on and architecturally required are currently backlogged. We expect construction to be delayed until after our show and the Greene County Fair." Cramer said construction should be completed this year in time for Hamvention 2019. "We regret this; however it is well out of our control," Cramer said.

On the plus side, he continued, Hamvention 2018 will have more room for inside exhibits, with the addition of the vacated Furniture Building, and the Flea Market may gain new space as well.

"After consultation with professionals, we are in the process of solving the mud issue in the Flea Market area," Cramer said. "We anticipate work to start as soon as weather allows. We are rearranging the soccer field parking to eliminate use of the low areas where we had problems last year."

A revised exit plan and additional off-site parking also are in the works, along with easy-to-use maps to help visitors to navigate. Parking and shuttles will be free. Talk-in also has new equipment and a taller tower to extend its reach.

"There are many new ideas we are working on to make your stay with us more enjoyable," Cramer added. "Keep watching our website for updates." — Thanks to Hamvention General Chair Ron Cramer KD8ENJ

CAARA PUBLIC SERVICE

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

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

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

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

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

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

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

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

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

Why should you participate in race events?

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

I would but I do not have a radio.

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

I don't have transportation.

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

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

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