

CAARA NEWS



Cape Ann Amateur Radio Association
Gloucester, Massachusetts
APRIL 2022 EDITION



PRESIDENT'S COLUMN

by Brandon- NQ1W

Dear Members,

It has been a long rough Winter. If anything, the past few years have taught us that we have to enjoy the time we have, because who knows what's around the corner. It also has taught me to especially appreciate the times when we can get together, no matter how abbreviated or punctuated. For instance it was great seeing all the people up at Halibut Point even though our group was so big the park attendant had to give us all the boot. I hope you agree that it was still fun seeing everyone and seeing how fast Kevin can setup and tear down his POTA station! I am getting really excited again about being able to host activities with friends again. And we hope that the start of spring is finding you well and ready for a season of fun radio activities too!

We are back to meeting in person at the clubhouse and hope to see you there on April 9th. I can't wait. We do ask that you wear a mask while indoors at the clubhouse if you are immune system compromised or are not vaccinated and boosted for covid-19.

First in person meeting coming up in April is an Emergency Communications Committee presentation by Dean Burgess on Tues. April 5th at the clubhouse. Dean will deal with the topic of 'go bags' for ham radio communication. Dean will demonstrate the essentials for a good emComm related radio kit. Members are welcome to bring their own kits for show and tell.

We are also happy to announce that Fred Beaulieu WA1ESU will be taking over as CAARA Special Events Coordinator and will be handling the race events for this season. Those of you interested in a fun outdoor activity that helps train hams for emergencies, public service and net control operations should consider volunteering for one of the special event road races. We



will be providing the radio communication along the race routes to ensure a safe and fun event for all runners. The first event is the Fools Dual Half Marathon & 5K on 4/3/2022 please contact Fred at walesu@comcast.net if you are interested in volunteering.

Another great thing happening is that Bill Poulin WZ1L and Jim Barber W0ZEN have volunteered to restart the Education Committee and will be bringing back both Technicians License Class and Exam Study Classes. As well as handling the examination facility CAARA has traditionally provided. I can't thank them enough for stepping up to help the club with this important work.

There are many ways to to get involved with CAARA, training, volunteering for events, doing demonstrations, running nets. So many ways to get involved. If you are interested in volunteering with CAARA let us know by emailing board@caara.net and we'll put your enthusiasm and great ideas to work helping other hams and your community.

Finally, I wanted to say a couple words about Ernst Scherer who recently passed. Ernst was a member and fellow board member and one of the nicest hams you could know. I will always be indebted to him for originally nominating me to the board of directors of CAARA and encouraging me to become more involved in the continued good governance and management of our club. He will be greatly missed by his friends on the board and in the membership of CAARA. I hope he rests in peace.

And thank each and every member for the continued support of your Cape Ann Amateur Radio Association!

Warmest Regards,

Brandon

Brandon Hockle NQ1W

President CAARA

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 jpcrockport@gmail.com . 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 Reporter

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Welcome to CAARA:

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

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

The 443.700 repeater is now on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced performance running in fusion mode and linked to 10 other repeaters in the New England area.

The Association is one of the few amateur radioclubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, with a variety of HF stations with beam, vertical, or G5RV antennas.

Amateur radio exams are held on REQUEST at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. Currently pre-registration is necessary. Contact the head of our VE team Bill Poulin- WZ1L 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 fm 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.

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.



THE EMCOMM MINUTE

By Dean- KB1PGH

Before I forget. The CAARA Emergency Communications group will be having a meeting on Tuesday April 5th at 7 PM at the clubhouse on 6 Stanwood Street Gloucester Mass. For this meeting I will be doing a presentation on disaster and prepper go bags. Everyone is encouraged to attend. Moving on to the next topic. So during disasters and emergencies its always great that we can assist with passing emergency traffic but there is another aspect that is sorely lacking and that is our ability to monitor the public safety agencies around us so we can fully informed and up to date our our surroundings. This topic can also cover disaster prepping for the non ham. That's why I would like to focus on scanners and monitoring public service agencies. I believe that anyone who is involved with emergency communications should own a scanner and monitor your local public safety services. There doesn't even have to be a disaster to enjoy scanning listening and being knowledgeable about your surroundings. Maybe I'm a bit bias because my father was the Manchester Mass fire chief so there was a scanner always on at home. Before I got my ham ticket I was big into scanner listening as well as shortwave listening. I even did a little bit of police dispatching way back in the day which was a fun experience. So lets go back to emcomm for a minute. Lets say you get called out to a disaster site to assist in passing amateur traffic. How are you personally going to know what your served agencies are doing and the situation on the ground if you can't monitor them? That's where having a scanner will help



you immensely. Now before I get into the scanning radios themselves our own HT's that we have the capability to monitor public service agencies .They can cover a lot but there is a problem that now exists. Many public service agencies are changing their transmissions to a digital mode called APCO P 25. Imagine it as if trying to monitor the Yaesu Fusion mode on CAARA'S 440 repeater while your on the analog mode. It's the same technology. Even locally Gloucester's and Rockport's Police have gone to digital and I hear that Manchester Police will go to all digital transmission sometime later this year. So lets see what you can listen to with a scanner. The obvious ones are your local police

and fire departments but you can also listen in on your local department of public works. You can also listen in on all the marine channels and that's a lot of traffic here on Cape Ann. Especially if you listen in on the marine emergency channel 16. You can also listen in on aircraft flying in and out of Logan and Beverly Airports. There are several local ambulance services you can listen too as well. Even the MBTA railroad. You can always monitor the local ham repeaters and monitor the VHF and UHF simplex frequencies as well. Plus you can always just "search" a band of frequencies to see what you can find. You can always listen into the local FM stations as well. There's a lot of communications to monitor out there. Gee, back in the day when I was in my teens and twenties one could listen to household cordless phone conversations and cellphone conversations as well before the went digital. You could even by a converter to enable the

old scanners to receive the 800 MHZ cellphone frequencies. If your young enough instead of programming a scanner you actually had to go to Radio Shack and buy a frequency "Crystal" that received our local towns public safety frequencies. The "Crystal was the size a bit smaller than a dime and was metal and had two pins on it which you installed into two holes in a holder inside your scanner. Talk about living in the dark

ages. Just google "Scanner Crystals" to see what I mean. Now there are many scanners out there that you can buy. There is the Whistler brand and the Uniden Bearcat brand and they can cost anywhere from \$350 to as much as \$660 for a top of the line digital scanner which is kind of outrageous for high of a price. You can buy a base model or a handheld model. For this months column I am going to focus on the Uniden Bearcat BCD 325 P 2 Handheld digital scanner .I have a couple of them. This one cost about \$370.I included a photo of it so you can get an idea of what it looks like. There's a learning curve with programming digital scanners. You can do it by hand but it takes a while or you can get a computer program to do it. These scanners don't work by single channels and banks like the older ones. Rather you program groups of what you want to listen to. You can also listen to "trunked" systems like the Mass state police. This scanner is sensitive and has great backlighting and the audio is fine out of the speaker. I like wearing a in ear stereo earpiece myself. I also like the "Service" search where it can search the air band or marine band and a couple other band for activity. This scanner works great for public service monitoring during disasters but it does have one flaw. It eats batteries like I've never seen before .Get a bunch of back up batteries if you take it anywhere. I like the Duracell Optimum brand .They are expensive but last the longest. One last thing is the stock antenna works ok with it but if you want to upgrade you can get the Diamond RH77CA antenna for it. It's quite longer and has better performance. You can buy this scanner on Amazon or sometimes they have them at Ham Radio Outlet. You can also get it at www.scannermaster.com which is located in Massachusetts. That's a good website to check out all sorts of scanners and accessories. So if your looking for your local public service frequencies I recommend you go to www.radioreference.com .You can also get programming software for this type of scanner and ham radio HT's at www.rtsystemsinc.com .That's it for now and I'll see you next month!

Foundations of Amateur Radio

Planning for an emergency...

Identifying the problem is the first step in fixing it and with that I want to talk about emergencies. One of the very first things I was told about our amateur radio community was that we're here for when emergencies happen. Our purpose is to communicate, so in a crisis, we can assist by supplying communication to the situation.

I've talked about some of this before. Preparedness in the way of on-air training by contesting, in getting gear ready and even exercises for when this occurs. There are amateur clubs dedicated to putting up repeaters for just such an eventuality.

Recently there was a local news item about radio amateurs banding together, sending gear to fellow amateurs who were hit by severe flooding that wiped out their shack and with it their ability to communicate.

Another event was a friend who lost a big chunk of his shack when his basement flooded.

Across Australia and in other parts of the world in recent times we've been witness to the most devastating fires that destroyed entire towns and communities, taking with it infrastructure, communications, not to mention stock, local flora and fauna and entire wildlife ecosystems, bringing some to extinction levels.

The destruction doesn't end there. War and famine, drought, cyclones, hurricanes or typhoons, snow storms, heatwaves and the like.

All those situations can to greater or lesser degree benefit from amateur radio communications, either for amateurs affected, or for the community at large.

I started considering what would actually be required to be useful in such a situation. Could you be prepared for anything, or are you required to pick and choose? What does "being prepared" actually look like and what steps can you take once it's happening?

I asked myself if sending radio gear to amateurs who are affected by floods is the most effective way to actually help, or would it be better to pass the hat around and send the proceeds to their bank account?

Should you as an amateur drive into an emergency area and start communicating, or are there better ways to help?

There are local amateur radio emergency service groups under various names in different countries, some of which are highly effective, others much less so.

One attempt I made was to join the local volunteer state emergency services. For several reasons that didn't work out for me, but it remains a viable option for some.

Joining those types of groups gives you a framework, but does it actually answer the underlying question, that of effectiveness?

I have a drawer full of emergency service training manuals, each more dense than the next, but very little of it relates to the amateur radio. Many pages are dedicated to search and rescue, staying alert, first aid, keeping alive, hand signals, log books, mapping and the like.

I am left wondering why we as a community, with a proud century of activity, having one of the main principles as emergency communication appear to have such a poor track record of actually considering what dealing with an emergency looks like and what your own individual place could be in that situation.

We document our radios, antennas, power supplies, contacts, circuit board designs, contesting procedures and all the rest of it, but we don't seem to do the same for emergencies.

Why is that?

In my opinion, it's time to document emergency amateur radio and if you have already started, get in touch.

I'm Onno VK6FLAB

CAARA has lost a beloved member, KD1JQ

Ernst F. Scherer, 86, passed away Friday, December 31, 2021 at Brentwood Rehabilitation & Healthcare Center in Danvers. Ernst was an active member of CAARA and he served on the CAARA Board of Directors from 2017 - 2020.

Born in Rapperswil, Switzerland he was the son of the late Ernst and Margareta (Kyburz) Scherer. He was the beloved husband of the late Joyce (Montague) Scherer. Ernst is survived by one son, Dana M. Scherer of Switzerland, and one daughter, Nicole M. Scherer of Hamilton.

FCC announce date when US radio hams will be charged for their license

On Wednesday, March 23, the FCC announced it would start charging for US amateur radio licenses on April 19, 2022

US radio amateurs will have to pay a \$35 charge when they apply for a license and again every time they renew or upgrade their license.

Watch FCC FEES for amateur radio - date announced by Ria N2RJ

<https://www.youtube.com/watch?v=Luy8XP8O390>

FCC Wireless Fees notice of effective date

<https://www.fcc.gov/document/effective-date-wireless-application-fee-rates>

Finland: Over 200 people start ham radio training

Finland's national amateur radio society the SRAL reports over 200 people have started training for an amateur radio license since the start of the year

The post by Board Director Timo Rinne OH5LLR says:

The beginning of the year has been fast-paced from the point of view of a new board member. Both the government and the office are currently understaffed, so there is plenty to do. Fortunately, we have received help from active Members and committees. The continuity of RA Magazine was confirmed when Tomi OH2ID took over the main position almost from the flight. The office's resources will also be strengthened during the spring.

There are new winds blowing in the committees, too. The concept of an automated station has evolved over the years, and the related processes and Radio Amateur regulations have not kept pace with the development. A new working group led by Erik OH2LAK has been set up to coordinate and develop the operation of automated stations in its current form. The Competition Committee will also sharpen tools to increase the test activity, more information on this in the following RA Journals.

At the time of writing, the war in Ukraine has lasted just over a week. The full-scale war is closer to us than at any time since The Second World War. The Proximity of the war and the fact that the invading party is our neighboring country will certainly provoke strong emotions in all Finns and also in us radio amateurs. It is quite humane that radio amateurs are also concerned about the situation and sympathy with the people affected by the war.

In the midst of all this, however, I would like to remember the importance of ham-spirit and the fact that radio amateurs have not started the war. I do not want to ostracize citizens of any country, but to confront every radio Amateur with the same openness and kindness, regardless of nationality.

Not so bad or something good. I am particularly pleased with the educational activity that started during the beginning of the year. There are three elementary class courses running with a total of over 200 participants. I have been following all the courses and have seen the trainers do an excellent job. Here grows a plush crop for the union, which should be collected as well as possible and realized in the form of new members.

Cooperation with our partners' important partners is progressing in a good spirit. The Board has held a traditional spring meeting with Traficom. It has been agreed that co-operation will be intensified and meetings will be held more frequently. In addition, we have started the preparation of the MPK partnership agreement as required by the autumn meeting. The draft agreement is scheduled to be submitted to the spring meeting for decision.

The pandemic is also finally easing its grip, allowing for a number of hidden forms of action. Club nights have been activated and various events can be organized again. The long-awaited DX pediatrics have been launched in several different countries. Hopefully, Finnish world travelers will soon set out to activate DXCC countries around the world.

Even the summer camp seems to take place after a long break. Riihimäki Kolmoset has started preparations for the camp and their progress will be announced in the spring bulletins and in RA. I hope to meet as many of you as possible in Eerikkilä in July as beaks.

Timo Rinne, OH5LLR

Bob Spanks- WA1UCG retired to the Villages in Florida last year but he brought his hobby with him.

C12 TUESDAY, MARCH 22, 2022 | THE VILLAGES DAILY SUN

local news

Dialing Into a New Frequency

By MICHAEL FORTUNA
Daily Sun Staff Writer

With the turn of a few dials on his ham radio, George Briggs can make contact with people from halfway around the world.

Briggs, whose call sign is K2ZDM, recently became president of The Villages Amateur Radio Club again. He joined the club after moving to The Villages permanently in 2012. He had served as president for two years before taking a year off.

"Contacting somebody and having them (call) back to me is fun," said Briggs, of the Village of Pinellas.

To stretch out his range in picking up radio signals, Briggs

found a little out-of-the-way place

North of Warm Springs Avenue in Wildwood, tucked away past a couple of winding roads is a manufactured home with three tall radio antennas in the backyard. He's nicknamed the property, "The Land."

Briggs has owned this place for about three years. The trailer wasn't in the greatest of conditions, but he and his wife, Karen Erickson, whose call sign is K4ZDM, cleaned up the place.

They set up two stations with various communications devices for general operating and competing, and they use EchoLink to send transmissions through the internet. He can talk to people either by voice or by Morse code.

Briggs can take signals from walkie-talkies, send them through a transmitter/receiver and repeat the message over a large area.

Depending on the frequency band, Briggs can find chatter



George Briggs, of the Village of Pinellas, sits in a trailer in Wildwood, where he has three tall ham radio towers.

either in the dead of night or from early morning through early evening. Some people like to bounce their signal off the moon.

On Monday nights, anywhere from seven to 15 members check in to say hello. Sometimes they'll get someone out of state who likes chatting with Villages residents, or they'll get others who may be traveling and can login via EchoLink.

Briggs received his first ham radio license back in

other things. When Jeff joined the Navy and headed off to Germany, he used to talk to his younger brother, Peter, using the radio. "I started feeling left out," Briggs said.

About 40 years ago, while in a graduate school, Briggs got his license again, and he never looked back. In his apartment in Manhattan, Briggs strung wire in the ceiling so he could pick up signals. He also put some wires up on the roof.

"I was near the East River," Briggs said. "I had a nice shot toward Europe."

When he moved to the suburbs, Briggs was able to put up a small tower in the backyard.

Throughout his life, Briggs kept up with the world of amateur radio. He enjoys taking part in competitions where he

can make contact with a certain amount of people within a time limit.

The Villages Amateur Radio Club is planning a Radio Rodeo on April 9 at Brownwood Paddock Square, where visitors can learn more about the club and amateur radio. Club members will have three to four stations set up on the stage, as well as temporary antennas.

During the summer, the group participates in events like the Hurricane Expo and Field Day to educate people about their role in producing communication to public safety departments in an emergency situation. The club also puts on an event during the summer as part of Camp Villages, during which the children put together FM radio kits.

For information about the club, visit k4vrc.com.

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W1AW 2022 Spring/Summer Operating Schedule

Morning Schedule:

Time Mode Days

1300 UTC (9 AM ET) CWs Wed, Fri

1300 UTC (9 AM ET) CWf Tue, Thu

Daily Visitor Operating Hours:

1400 UTC to 1600 UTC - (10 AM to 12 PM ET)

1700 UTC to 1945 UTC - (1 PM to 3:45 PM ET)

(Station closed 1600 to 1700 UTC (12 PM to 1 PM ET))

Afternoon/Evening Schedule:

2000 UTC (4 PM ET) CWf Mon, Wed, Fri

2000 " " CWs Tue, Thu

2100 " (5 PM ET) CWb Daily

2200 " (6 PM ET) DIGITAL Daily

2300 " (7 PM ET) CWs Mon, Wed, Fri

2300 " " CWf Tue, Thu

0000 " (8 PM ET) CWb Daily

0100 " (9 PM ET) DIGITAL Daily

0145 " (9:45 PM ET) VOICE Daily

0200 " (10 PM ET) CWf Mon, Wed, Fri

0200 " " CWs Tue, Thu

0300 " (11 PM ET) CWb Daily

Frequencies (MHz)

CW: 1.8025 3.5815 7.0475 14.0475 18.0975 21.0675
28.0675 50.350 147.555

DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095
28.095 50.350 147.555

VOICE: 1.855 3.990 7.290 14.290 18.160 21.390
28.590 50.350 147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13
and 15 WPM

CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15,
13 and 10 WPM

CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying
Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and
MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of
each practice is given at the beginning of each practice
and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2230 UTC (6:30 PM ET),
Keplerian Elements for active amateur satellites are
sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular
bulletins between 0000 UTC (8 PM ET) Thursdays
and 0000 UTC (8 PM ET) Fridays.

Audio from W1AW's CW code practices, and
CW/digital/phone bulletins is available using
EchoLink via the W1AW Conference Server
named "W1AWBDCT." The monthly W1AW
Qualifying Runs are presented here as

well. The CW/digital/phone audio is sent in real-time
and runs concurrently with W1AW's regular
transmission schedule.

All users who connect to the conference server are
muted. Please note that any questions or comments
about this server should not be sent via the "Text"
window in EchoLink. Please direct any questions or
comments to w1aw@arrl.org.

In a communications emergency, monitor W1AW for
special bulletins as follows: Voice on the hour, Digital
at 15 minutes past the hour, and CW on the half hour.

HALIBUT STATE PARK PORTABLE OPS



SNOW

Curt-AA3JE

When I was in school, I was taught that the Eskimos had a hundred words for “snow”. I have since learned that the Eskimos have one word for snow, which translates as “SNOW”.

What the Eskimos do have are a hundred adjectives for snow. As do residents of northern New Hampshire. Anyone considering a retirement home above the Notch in New Hampshire needs to develop their vocabulary.

There is fine drifting snow, that builds four foot high drifts against the house.

There is wet soggy snow that weighs sixty pounds per cubic foot.

There is glare and black ice that forms a skating rink.

There is melting snow, that packs into a three inch thick ice pack.

Most of the local adjectives cannot be printed in a family news sheet.

And it snows every day in some parts of winter. Northern New Hampshire lies at the junction of the Canadian air masses and the Southern air masses, making for wild and weird weather. Fifty or sixty degree swings in the course of a day are common.

Last week, we had 50 degree days, balmy sunshine, and all the undrifted snow melted. I figured Spring was here. Go figure. I put the boots away.

Then the temperature plunged to 5 degrees F, and we waited. Moist Massachusetts air floated in, and we had an inch of a sleety mixture pouring down. I woke to a glittering, property wide sheet of ice, and wondered what to do. Fortunately the emergency generator worked when the power went out.



A few tentative steps showed me that walking to the truck was out, so after crawling on my knees and elbows, I got to the truck, chipped the door handle free, and got in. Engaging the Four Wheel drive, I slid down the drive sideways, and waited for the salt truck. Driving slowly and in a terrified fashion to the local stores, I tried to buy some salt.

“Salt? No, we ran out a week ago.”

“You and everyone else wants salt.”

“Maybe in September.”

The worst one was when the clerk just laughed.

Finally, in a flash of inspiration, I asked for water softener salt. Expensive, but salt.

With two bags of very nice, very expensive, white salt, I returned home. After experimentation, I found that a four foot section of log would pound it into powder. Starting from where I was, I played Johnny Applesalt, and got the drive walkable. After getting it so you could walk to the truck and get out the drive, I looked at the porches.

No way, wait for a thaw.

One hundred adjectives for snow. Go figure.



Amateur Radio Newline Report

CHINA'S SPACE STATION TO PUT HAMS IN ORBIT

PAUL/ANCHOR: Our top story this week takes us to the space station that China is building, module by module. The latest word is that one of those modules will have room for amateur radio. Jim Meachen ZL2BHF has those details.

JIM: China's Tiangong space station, which is being constructed in low Earth orbit following the launch of its first module last May, is expected to have room for astronauts, experiments and now, amateur radio. The IARU's satellite frequency coordination panel reports that it received an application on March 8th for an amateur radio payload to be on board. The station is being proposed by the Chinese Radio Amateurs Club in cooperation with the Aerospace System Engineering Research Institute of Shanghai and the Harbin Institute of Technology. Previous news reports have noted that the Chinese Manned Space Agency plans to have three astronauts on board continuously for a minimum of 10 years. One module will house the astronauts; the space station expects to use the remaining two of its three modules to host scientific experiments of researchers from all nations of the UN.

The amateur radio station is applying to use portions of the VHF/UHF amateur radio band and will consist of communications by voice, repeater, AFSK digipeater and SSTV or other digital imaging modes. Not unlike the radios on board the International Space Station, the ham radios on the Chinese space station are intended for a variety of uses, including contacts with students to inspire careers in science, technology, engineering and math. According to the application, the payload would launch in the third quarter of this year

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EUROPEAN CONFERENCE SUSPENDS RUSSIAN, BELARUSIAN MEMBERSHIP

PAUL/ANCHOR: Hams from Belarus and the Russian Federation are feeling the impact after their nations' memberships were suspended from the European Conference of Postal and Telecommunications Administrations. Ed Durrant D5LP has an update.

ED: The European Conference of Postal and Telecommunications Administrations has indefinitely

suspended the membership of Belarus and the Russian Federation, in a sweeping action that has an impact on amateur radio operators. An agreement within the conference, known as CEPT, grants amateur radio privileges to qualifying hams traveling between signatory countries without the need to obtain additional permits or licences. The CEPT was formed to foster cooperation among its member nations with regards to postal and electronic communications.

The suspension, which comes in the wake of Russia's invasion of Ukraine, took effect on the 18th of March. The Russian Federation joined CEPT in 1994. Belarus became a member in 2003.

SILENT KEY: GILES READ, G1MFG, RSGB'S TECHNICAL EDITOR

PAUL/ANCHOR: The Radio Society of Great Britain has suffered a great loss with the death of one of its key team members. Jeremy Boot G4NJH has that story

JEREMY: Giles Read, G1MFG, had been the technical editor for RadCom magazine, the widely read publication sent free every month to Society members throughout the world. The Society announced that Giles, who had been diagnosed with an aggressive form of cancer just days earlier, became a Silent Key on Friday, March 18th. No further details were immediately available. We here at Amateur Radio Newline extend our condolences to his family and friends.

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AUSTRALIAN HAMS HELP ONE ANOTHER FOLLOWING FLOOD LOSSES

PAUL/ANCHOR: Amateur radio clubs are proud to be able to help in disasters - but what happens when the clubs themselves become victims? John Williams VK4JJW tells us how one club in Australia has stepped up to help a dozen of those whose shacks were devastated by recent floods.

JOHN: An amateur radio club on the border of New South Wales and Victoria in Australia has come to the rescue of a dozen or so clubs that, like their own, works to assist communities ravaged by such disasters as bush fires, earthquakes and floods. In this case, however the North East Victoria Amateur Radio Club has stepped in because the other clubs became victims themselves after recent floods destroyed their vital radio gear and in many cases,

washed it away. The club has been providing assistance by collecting funds as well as new radio gear.

Frank Scott, VK2BFC, secretary of the club, told ABC.NET news that a fund has been created to replace as much of the other clubs' lost gear as possible. He said many of the clubs belong to the Wireless Institute of Australia's Civil Emergency Network. According to Frank, most of the equipment that was lost was not covered by flood damage insurance. Frank said it was difficult to get that kind of insurance for such items as ham radio equipment and communication towers

TWO-DAY DRILL IN INDIA PREPS FOR DISASTER

PAUL/ANCHOR: Two groups of hams tested their portable communications capabilities recently on a remote island in India. Jason Daniels VK2LAW tells us about their drill.

JASON: An exercise in emergency preparedness brought hams in one region of India to a remote island on the River Ganga near Patna, the capital city of Bihar. It was a two-day field exercise on March 12th and 13th for members of the Society of Radio Amateurs, relying only on battery power for more than 30 hours. They were joined by operators from the Indian Wave of Amateur Radio VU2IWA, based in Kolkata who, like the hams from Bihar, know that preparedness is essential in a region like theirs, which is prone to earthquakes and floods. Radio conditions that weekend were conducive to good contacts. According to a report on the Global Bihari news site, hundreds of QSOs were made between that remote island and radio operators as far away as Europe. The hams were pleased with the results since many of them provide essential communication during the region's natural disasters.

AMATEURS FOCUS ON SEVERE WEATHER PREPAREDNESS

PAUL/ANCHOR: Weather preparedness is a priority everywhere and Randy Sly W4XJ tells us how those of us in the United States can get involved.

RANDY: As we, here in the United States, approach the season for thunderstorms, tornadoes and hurricanes, the National Weather Service is holding Severe Weather Preparedness Weeks across the country. Tornado drills, announcements through the media and personal preparation information are just a few ways the Weather Service is getting the word out at this time of year to be prepared.

It's a good time for amateur radio operators, involved in ARES, RACES, CERT, Skywarn and other groups, to ensure that we are also prepared. This includes making sure that all radios, accessories along with backup power sources are fully functional and that all contact information is up to date with the agencies and organizations served.

Christopher Strong, Warning Coordination Meteorologist for the Baltimore/Washington DC Weather Forecast Office told Amateur Radio Newsline that hams can play a big part in being "weather aware," by knowing what threats are possible. Hams should have a plan if extreme weather occurs. Strong said that, during an event, operators are important as they actively gather impact data from their community and get that information back to the National Weather Service, which improves the accuracy of the notifications being issued.

Over the years, the motto: "When all else fails, amateur radio" has proven true in many situations. This is not only due to amateur operators' readiness to serve, but our willingness to be prepared.

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NOMINATE YOUNG AMATEURS FOR NEWSLINE AWARD

PAUL/ANCHOR: It's time to think about the next generation of radio operators and appreciate their skill and dedication. Perhaps one of them will be the next recipient of the Amateur Radio Newsline Bill Pasternak Memorial Young Ham of the Year Award. Consider nominating an amateur radio operator 18 years of age or younger with talent, promise and a commitment to the spirit of ham radio. Find application forms on our website arnewsline.org under the "YHOTY" tab. Nominations close May 31st.

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FCC HAM RADIO LICENSE FEE TAKES EFFECT APRIL 19T

PAUL/ANCHOR: Get ready for April 19th. If you're looking to upgrade, renew or change your callsign, you have until that date to do so without having to pay a fee. The FCC has announced its new \$35 application fee for US amateur radio licenses takes effect on that date. The agency said the fees can be paid by using the Commission's Universal Licensing System on the FCC website. The FCC posted a public notice on its website

on March 23, announcing it would begin collecting the fees, which it has said will cover the costs of processing the applications. For hams, the fees apply to new licenses, renewals, upgrades, sequential call sign changes and applications for vanity calls. It does not apply to such administrative updates as change of email or other mailing address

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OREGON LAUNCHES STATE'S FIRST SATELLITE

PAUL/ANCHOR: The team behind Oregon's first satellite gets bragging rights this week after its successful launch from Alaska. Ralph Squillace KK6ITB brings us that story.

RALPH: Space enthusiasts are celebrating the launch of Oregon's first satellite, which carried amateur radio into low Earth orbit on a spacecraft no larger than a box of tissues. Known as OreSatØ, it is an open source CubeSat built by the Portland State Aerospace Society, an interdisciplinary group of students at Portland State University. With solar panels, batteries, a color camera and of course amateur radio on board, it was launched on March 15th from Kodiak, Alaska.

The group's faculty advisor, Andrew Greenberg, KD7CJT, said on the university website [quote]: "Our small group of space hipsters gathered in the rocket room to watch the launch with fancy bagels and pour-over coffee, and then collectively held our breath for more than an hour." [endquote] After some nervous moments, they learned the flight had gone smoothly. Its mission, which is to test the cubesat system itself, is expected to last several years. Fear not, this won't be the first and the last for Oregon. The group is already hard at work on OreSatØ.5 (OreSat Zero Point Five), and it's scheduled for launch this summer. It will be a larger satellite for NASA's CubeSat Launch Initiative and will carry equipment gathering data for global climate science, studying the distribution of high altitude cirrus clouds.

NORWAY'S BEGINNERS' LICENSE GAINS TRACTION

PAUL/ANCHOR: Norway is moving forward with a plan to introduce a new amateur radio license for beginners. Jeremy Boot G4NJH has that story.

JEREMY: Norway has plans to introduce a 10-watt entry level certificate for young hams. It has the

financial support of one million Kroner, or nearly \$114,000 US dollars, from the Norwegian Research Council with the input of hams throughout the nation.

The proposal, introduced last year, was discussed at Norway's Hammeeting, an annual amateur radio convention. Attendees included the communications regulator NKOM and the Norwegian Radio Relay League. The NRRL, the Research Institute of Forsvaret and Torbjørn, LA4ZCA, are working together on a plan to introduce the subject formally into school curricula. The proposed certificate would become available to 12- and 13-year-old enthusiasts operating at low power on limited bands.

The entry level licence has the support of such groups as the Academic Radio Club, or ARK, which has already been making classes available. The ARK is Norway's oldest amateur radio club for students.

PAUL/ANCHOR: Get ready for a birthday party on the air, marking one of the greats in American country music history. We hear more about this special event from Jim Damron N8TMW.

JIM: The Amateur Radio Service Club of Paintsville, Kentucky will be operating a special event station from the birthplace of American country music star Loretta Lynn in Butcher Hollow in Van Lear, Kentucky. The hams are commemorating her 90th birthday.

During her musical career, Ms. Lynn received numerous awards including three Grammys, seven American Music Awards, eight Broadcast Music Incorporated awards, 13 Academy of Country Music, eight Country Music Association, and 26 fan-voted Music City News awards.

The club will be using the callsign K4L, which stands for Kentuckians for Loretta.

The special event station will be operating from Zero through 2359 hours UTC on April 14th, 2022 on all HF bands and on repeaters on the East Kentucky Repeater System. They will also be operating some of the digital modes, as well as CW.

For a specially-designed QSL card confirming your contact, send your QSL and SASE to KY4ARC.

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HAMS CLIMB UP FOR INTERNATIONAL HEMA SUMMIT DAY

PAUL/ANCHOR: Summit activators are getting ready for a formal international challenge in the HEMA awards scheme. Ed Durrant DD5LP bring us that report.

ED: Few challenges are too tall for radio operators who are accustomed to conquering and activating summits. So when summit radio enthusiast Rob, G7LAS, suggested to his fellow activators that they participate in an International HEMA Summit Day on Saturday, April 2nd, they jumped on board. Activators from around the world have committed to operating on that day to get as many other summits in their logs as possible. Others have pledged to be enthusiastic chasers. Activators will especially be looking to grab contacts between HEMA summits in the recently added associations. To qualify for the HEMA award scheme summits must have a prominence between 100 and 150 metres over the surrounding terrain.

WORLD OF DX

In the World of DX, the 3YØJ Bouvet Island Dxpedition has put out a QST in the hopes that the team can add a radio operator from North America focusing on SSB. Co-leader Ken, LA7GIA, wrote in a posting on the team's Facebook page that the physical challenges during the DXpedition and the 10-day sail in early 2023 will be intense. The team guarantees pileups but no showers for three weeks. The team members is expected to pay a minimum of \$20,000. Interested? Send an email to info at 3yØj dot no (info@3y0j.no)

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KICKER: NO DEFLATED EXPECTATIONS FOR THIS WEATHER BALLOON

PAUL/ANCHOR: For our final story, we hear about a group of university students in Pennsylvania who were just as happy when their weather balloon launched...as when it burst. Sel Embee KB3TZD has their story.

SEL: The morning fog covering Philadelphia burned off just in time for the triumphant launch of the latest high altitude weather balloon of the Villanova University CubeSat Club. The balloon's 90-minute journey on Friday, March 18th, began on the college campus in Pennsylvania just before noon local time and ended at 1:30 in the afternoon in central New Jersey.

The payload included three amateur radio transmitters using the club callsign W3YP, three cameras and a GPS tracker. Progress reports were tweeted live by club advisor Alan Johnston KU2Y and the students livestreamed the action from the club's Instagram account. The helium-filled latex balloon was designed to burst when the flight reached an altitude of 60,000 feet or 18.2 kilometres. The payload was outfitted with a parachute which returned it to Earth for successful recovery by the students.

LICENSE NEWS

The Federal Communications Commission announced in a public notice today (March 23, 2022) that it will begin collecting license fees from amateur radio operators beginning on April 19, 2022. Persons who successfully pass their amateur exam are expected to be emailed by the FCC to pay the fee online before their license is issued electronically.

The new \$35 fee covers new, renewed and upgraded licenses, as well as vanity call sign requests. There is an exemption for administrative updates such as change of mailing or email address.

The FCC published the new fee in the Federal Register on March 19, 2021, indicating the end of free licenses and that the agency would begin charging for amateur radio licenses and vanity call signs.

The new law went into effect on April 19, 2021. The FCC spent the past year getting their computer systems capable of accepting the new \$35 payment from hams.

Students who want to avoid the new \$35 fee should plan to take their FCC licensing exams through a Volunteer Examiner or Volunteer Examiner Coordinator before April 19, 2022. Licensees who want to obtain a vanity call sign without paying the \$35 fee for the next 10 years should apply before April 19, too. After that date, all such FCC transactions will incur the new \$35 fee.

73

Bill

BILL POULIN, WZ1L

VE LIAISON

East Boothbay couple listening to Ukrainian invasion on shortwave radio

An East Boothbay couple is hearing about the Russian invasion of Ukraine a little sooner than most. For the past month, Al and Shirley Sirois have been glued to HF (high frequency) or shortwave radio transmissions between people around the world and Ukrainians. On March 4, they heard conversations between the BBC (British Broadcasting Corporation) and Ukrainians during the attack on the Zaporizhzhia nuclear power plant which caught on fire. The Siroises listened until transmission propagation began to wane. In Maine, Al says the best time to listen is between 3 to 6 p.m.

Later, the couple went out to dinner. Once they entered the restaurant, they saw the first broadcast television reports of the invasion. “We walked in, and the TV



news reported this as something just happening, but we heard about it a couple hours ago,” he said. For the Siroises, listening to the invasion has become a daily experience. They listen to live accounts from people experiencing the Russian invasion. “It’s absolutely

amazing,” Al said. “We hear what’s happening instantly over the BBC frequency in London. They speak to people describing things like Russian tanks rolling in and how 2,000 Russian soldiers shooting their way to the plant.”

The attack on Zaporizhzhia nuclear power plant sparked a memory for Al. He worked at the former Maine Yankee Nuclear Power Plant in Wiscasset. He spent a decade at Maine Yankee as a chief instrument engineer for the generator project. It was there he became a licensed Ham Radio operator. One of his duties was contacting the Maine State Police by Ham Radio if an emergency occurred and other traditional communication devices became inoperable. “The attack on the power plant reminded me of my time at Maine Yankee and all the procedures we had to follow in case of an emergency,” he said.

There are other aspects of the invasion being heard by the Siroises and other Ham operators around the world. Al recalls hearing transmissions from nearby European countries accepting Ukrainian refugees. “There are a large number of Ukrainians being displaced. We listen at home to people in Bulgaria, Poland, France, England and Italy making preparations to accept them,” he said.

Al Sirois hopes the HF transmissions may bring about an end to the conflict. Besides the immediacy of listening to the HF transmissions, Al enjoys another aspect of this type of communication. The direct transmission results in no editing or censoring of topics. “People in Russia can hear this. So I’m hoping this might bring about a change in their leadership or policy,” he said.

Al describes listening to shortwave broadcasts as a relatively simple activity. He recommends for those interested in hearing what’s on people’s minds around the world to buy an HR shortwave radio. “The community can go to HRO (Ham Radio Outlet) in Salem, New Hampshire to buy new or used equipment. There you can purchase a radio for \$100 to \$200. After that, you just throw a 30-foot wire out the window,” he said. Ham radio operators tune in to giant waves in the earth’s ionosphere. Ham radio operators tune in to giant waves in the earth’s ionosphere.

Ham radio operators tune in to giant waves in the earth's ionosphere

The very upper layer of our atmosphere is electrically charged and sometimes the electrons up there clump up and form giant waves larger than Texas that zip around the Earth faster than a jet plane. A team of researchers from NASA's Ham Radio Science Citizen Investigation (HamSCI) has observed these giant waves, called Large-Scale Traveling Ionospheric Disturbances, or LSTIDs, for the first time. Volunteers from the amateur radio community collected the data. His new technique for observing these LSTIDs and vividly demonstrates their effect on radio communications. It can help us understand where these waves come from, and how the layers of our atmosphere interact. These results were published in the American Geophysical Union journal Geophysical Research Letters.

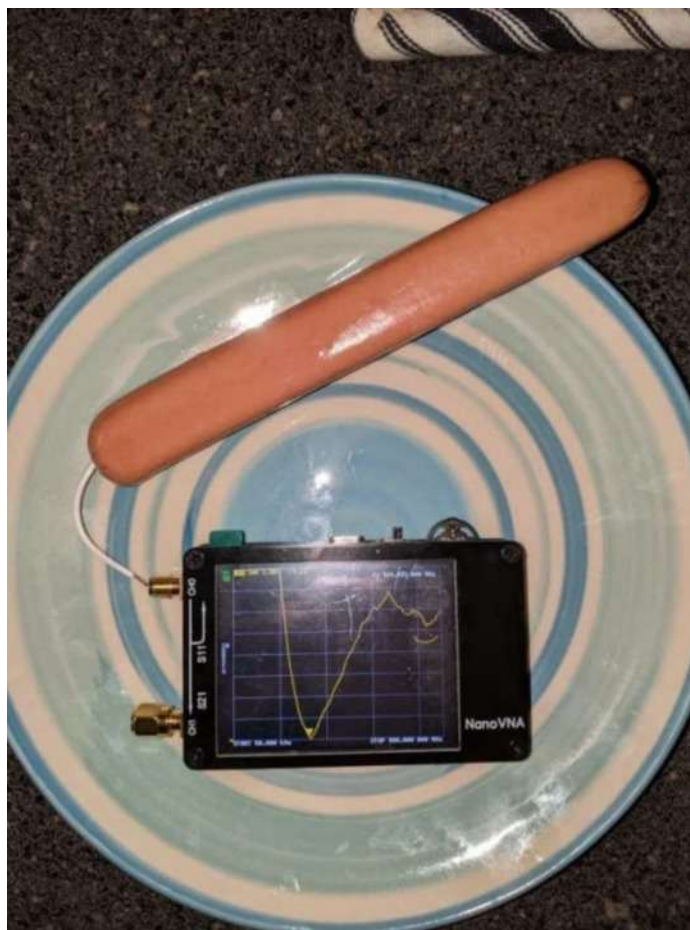
If you love amateur radio and like to get involved with the HamSci citizen science project, visit <https://hamsci.org/>.

TRIVIA: Pricilla Presley was a ham operator!



Presley expressed her feelings about ham radio and her career demands precluded her to continue in a hobby that she said “was really addictive!” She allowed her ham ticket to expire in 2000. Ms. Presley was listed in the 1990 call book as KC6IWA and N6YOS, under her maiden name."

Her ticket expired in 2005. She had 2 different calls. Both are not in her name. KC6IWA and N6YOS. Photo on the right.



Even a lowly hot dog has a resonant frequency.

This wearable fabric microphone can listen to the world—and your body

It's true—researchers from the Massachusetts Institute of Technology and the Rhode Island School of Design have created a microphone out of literal whole cloth. Their fabric microphone can detect and transmit sound waves, then convert them into electrical signals inside the cloth itself. Though the cloth can transmit sound and electrical signals, eventually, an external hardware is needed to process those signals. Their research is published today in the journal Nature.

The QSO Today Virtual Ham Expo is still open in On-Demand mode

You can still see over 60 presentations with the Q&A that followed over the weekend. Our new Restream technology allowed us to very quickly put the presentations together with the Q&A for viewing now. vFairs extended our On-Demand period for a full month of presentations.

Thank You and Great Show

Our recent Live March 2022 Expo was a tremendous success with thousands of attendees! We received amazing positive feedback from attendees as well as constructive suggestions for our next Expo. In addition, the on-demand period has kicked off and ticket holders now have access to all of the speakers and exhibits until April 18th, 2022. We extended the On-Demand Expo an additional week to have more time to view the presentations with Q&A, a new innovation this time around.

Here are some highlights we would like to share with you about the March 2002 Live Expo:

The Expo went off flawlessly with the vFairs Expo platform delivering a great experience.

The new Kumospace lounges proved to be fantastic! Attendees were able to sit in live virtual conference lounges for “eyeball QSOs” with each other as well as exhibitor staff. The Expo finished with 63 amazing presentations. The top 3 presentations had a total of 3600 people in attendance.

The most interesting (and attended) presentations were the following:

'Keynote: The importance of Amateur Radio and technical hobbies to advance the world's technology and "mankind's biggest projects", by Courtney Duncan N5BF,

“From the Sun to the Earth to the Ionosphere” by Ron Wilcox KF7ZN, and

“How to Capture the MAGIC of Six Meters”, by Jim Wilson K5ND.

We continue to attract many operators who don't go to in-person events because of distance or concerns about traveling (due to Covid or travel expenses). Our unique virtual format means that everybody can participate in

the Expo regardless of weather, distance, or travel concerns!

A significant portion of our attendees also attend in-person events but see the QSO Today Virtual Ham Expo as a “must attend” event due to the quality and learning that takes place.

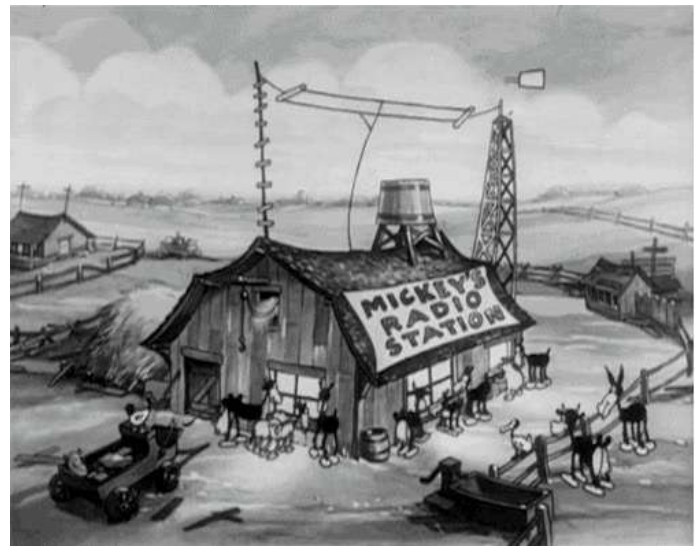
We're already at work planning our next Expo scheduled for September 2022. We will send a notification as soon as the exact date is finalized.

If you have an Expo ticket, be sure to go back to the Expo for more great amateur radio content. If you don't have a ticket, you can still visit the Expo until April 18th. [Click here to get to the Expo.](#)

Thanks again for your continued support. See you at the Expo!

73,

The QSO Today Virtual Ham Expo Team



Owning a shortwave radio is once again a subversive activity

An abiding memory for a teen fascinated by electronics and radio in the 1970s and 1980s is the proliferation of propaganda stations that covered the shortwave spectrum. Some of them were slightly surreal such as Albania's Radio Tirana which would proudly inform 1980s Western Europe that every village in the country now possessed a telephone, but most stations were the more mainstream ideological gladiating of Voice of America and Radio Moscow.

It's a long-gone era as the Cold War is a distant memory and citizens East and West get their info from the Internet, but perhaps there's an echo of those times following the invasion of the Ukraine. With most external news agencies thrown out of Russia and their websites blocked, international broadcasters are launching new shortwave services to get the news through. Owning a shortwave radio in Russia may once again be a subversive activity. Let's build one!

There was a time when everyone had a radio, and radio listening was a universal occupation. From 1930s families clustered round an ornate family radio to the teenagers of the 1960s and 1970s with their portables, it's a defining 20th century image. Though many of us still listen to radio here in 2022 the chances are that we no longer do so over AM and certainly not over shortwave. We can get instant access to almost any content online, so it's by no means certain people will have a radio. If those shortwave transmissions are starting again, how can their intended audience pick them up? Perhaps it's time to look at shortwave radios with a 2022 slant.

If you lack a shortwave radio and a dig around all your family's junk hasn't turned up a relic from decades past, then the simplest way to get one is of course to buy one. AliExpress is full of "world band" radios starting from somewhere under \$20, and if you don't mind waiting for shipping from China then it's the path of least resistance.

But there's the problem, international events are moving fast and there might not be the luxury of waiting three weeks, or even for that matter of being able to order one at all in a warzone. How can you make one? Yet again there's an extremely simple option in the Silicon Labs series of one-chip radios. These provide a high-performance shortwave receiver with a minimum of external parts, and really are a miracle of integration. But yet again, in a warzone and in the middle of a chip shortage they just might not be an option. So how can you make a shortwave radio receiver using what parts might be at hand from available consumer electronics? We'll first be taking a look at some possible avenues, and then introducing a few of the readily available building blocks.

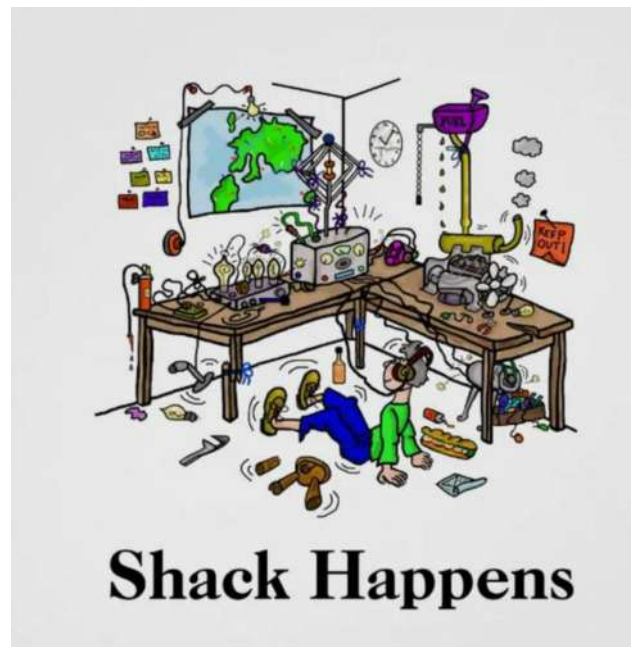
WHERE DO YOU START?

The best way to start is to look at the things that you might already have. Such electronic flotsam and jetsam as battery-powered AM radios, car radios, or even \$10

RTL-SDR sticks. All of these can be modified or converted to receive the shortwave broadcast bands, often with readily available parts.

Probably the simplest method possible might be to directly modify an existing AM radio. I'm indebted to [Phil M6IPX] for passing me on an instructables link for a method to do this. It involves changing the resonant frequency of the ferrite rod antenna coil in the radio, and I'm guessing, relying on a harmonic of the local oscillator rather than the fundamental to do the mixing. It doesn't cover all the broadcast bands, but it might do at a pinch.

<https://hackaday.com/2022/03/17/owning-a-shortwave-radio-is-once-again-a-subversive-activity/>



NEXT MONTH

I will be adding a new Column: **For Sale or Trade**. Anybody can submit items at no cost to sell to other club members. Simply send a photo, price, and description to Jon JPCROCKPORT@GMAIL.COM

I will start posting club activities, committee reports, as well as other items of interest. Please feel free to send photos of ham activities or ham articles to Jon -K1TP for publication.