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NEWSLETTER

April 22, 2022



Anchorage Amateur Radio Club
Radio Science and Operations Center
AARC RSOC

Our Mission

The mission of the Anchorage Amateur Radio Club is to vigorously promote, support, and lead amateur radio activities in a manner that honors and exemplifies the [radio amateur's code](#), builds esprit de corps within our membership, and serves our community's needs.

Our Vision

An inclusive community of engaged, trained, and prepared emergency communication volunteers

RSOC Motto

Learn, Teach, Serve

AARC Vision - *An inclusive community of engaged, trained, and prepared emergency communication volunteers*

Contents

How to Keep Tabs on the AARC / RSOC.....	4
Have You Seen the AARC / RSOC Video?	5
Our Board of Directors	5
From the Prez	6
COVID-19 and AARC Meetings	7
Protective Measures	7
Meetings and Events	7
Operations and Procedures.....	8
Public Service Activities	8
Current Service Volunteer Opportunities	9
53rd Annual Walk & Roll for Hope	9
Gold Nugget Triathlon.....	10
Alaska Run for Women.....	10
Southcentral Simplex Net.....	11
Hamfest Happenings.....	11
From the Blog.....	12
KL7IS Needs Help – Extreme 80 Meter Interference.....	12
New Anchorage 220 MHz Repeater Up for Testing.....	13
RSOC Tower Work – SAMS Loop Back to 100 Percent.....	14
Looking for APRS Options Without a Radio?	15
10 Meter Opening to Australia, 4/6/2022 1700L	17
9-Year-Old KL5IX Tells Her Story.....	17
FCC Provides Additional IMPORTANT Info on Upcoming Licensing Fees.....	18
UPDATE – Call for Expertise/Assistance – Linux/Raspberry Pi	20
A Look Back	21
RSOC Operations	22
Heavy Rolling Stock	23
Battery Lab.....	23
LoRa System.....	24
Robust Packet Gateway.....	25
Club Repeaters	25
Grubstake Repeaters Fund	27

Other Area Repeaters	28
AARC Mesh Network	29
DMR / DStar Repeater	31
AARC Frequency Utilization Plan (FUP)	32
APRS Digipeater / Gateway	32
Swap & Shop	33
Yaesu FT290RII and FT817	33
VEC Report	33
Donations – How To Support Us	36
Our Partners.....	36
CQ Radios	36
SignalStuff	37

How to Keep Tabs on the AARC / RSOC

General Membership Meetings

Held on the 2nd Thursday of every month at 7 pm. If it weren't for COVID-19, we'd be having these meetings in-person at the RSOC. Until COVID-19 resolves, we're holding these meetings via ZOOM. Go to the club's website to get the Zoom link. You can find our calendar listed on our main webpage at kl7aa.org, but you can go directly to our calendar at <https://kl7aa.org/events/>.

Monthly Newsletters

If you are a club member, you should be receiving our monthly newsletter via e-mail when it publishes. If you are a member and you are NOT receiving the monthly newsletter via e-mail, please let us know at editor@kl7aa.org. Of course, ANYONE can find our current and archived newsletters on our website at <https://kl7aa.org/newsletters/>

Webpage

Lots of information is located on our webpage. The home page is located at <https://kl7aa.org/>

Blog Posts

We put out blog posts on our website. These can be found on our home page on the website at <https://kl7aa.org/>, or directly at <https://kl7aa.org/blog/>. Typically, our blog posts also get inserted in our newsletter and are also "pushed" out to our Facebook and Twitter pages. More on Facebook and Twitter below.

Facebook

Our Facebook page is located at <https://www.facebook.com/kl7aa/>. As mentioned above, most activity is related to blog posts we put out, but there is some other action if you are into that sort of thing! We have 601 followers.

Twitter

Yes, we have a Twitter account, @AnchorageARC. Our blog posts show up there for sure. Right now we have 52 followers.

KL7AA Reflector

What does the reflector do? Well, if you send an e-mail to it from your registered e-mail address, that message will be distributed to the 151 current subscribers on the

list! It's a great way to get info out to the group, and a great way to keep up with some of the current happenings. Further, as a registered member of the list, you can get a list of the other registered members (well, at least those who don't opt to conceal their identity in the options), can set the system to give you daily messages, and set a number of other options.

To join the reflector go to <http://www.qth.net/mailman/listinfo/kl7aa>

There, you can subscribe and get started. It's pretty simple and straight forward, but if you need help, give us a shout at info@kl7aa.org.

Have You Seen the AARC / RSOC Video?

Check out our cool 5-minute video about the AARC and the Radio Science and Operations Center. Many thanks to Mark Sabel, WD6BMJ and others who worked so hard to make this a reality! [Click here to access the video](#)

Alternatively, visit the club website at: <https://kl7aa.org/>

Then hover on "About"

Then select "RSOC Story Video"

Our Board of Directors

Position	Name	Call	Term Ends	Contact
President	Richard Tweet	KL2AZ	12/31/2022	President (at) kl7aa.org
Vice President	TJ Sheffield	KL7TS	12/31/2022	Vicepresident (at) kl7aa.org
Secretary	Morgan Schoenecker	KG7SEQ	12/31/2023	Secretary (at) kl7aa.org
Treasurer	Kent Petty	KL5T	12/31/2023	Treasurer (at) kl7aa.org
Director	John Lime	KL4OF	12/31/2024	KL4of (at) kl7aa.org

Director	Keith Clark	KL7MM	12/31/2024	Trustee (at) kl7aa.org
Director	Kevin Opalka	KL1V	12/31/2024	Kevin.opalka (at) kl7aa.org
Director	Matt Ostrander	KL4QH	12/31/2022	Kl4qh (at) kl7aa.org
Director	Walter Yankauskas	KL7WY	12/31/2022	Walter.yankauskas (at) kl7aa.org
Director	John Bury	KL7QZ	12/31/2022	John.bury (at) kl7aa.org
Director	Dave Webb	N9AIG	12/31/2023	N9aig (at) kl7aa.org
Director	Matt Notte	WL4DX	12/31/2023	Notte142 (at) gmail.com
Director	Louis Tozzi (Wigi)	KL0R	12/31/2023	Wigi.tozzi (at) kl7aa.org
Director (Past President)	Lara Baker	AL2R	12/31/2023	Lara.baker (at) kl7aa.org

From the Prez

Greetings to the membership of the Anchorage Amateur Radio Club. Your support during these rough Covid months with attendance by Zoom has been greatly appreciated. Your AARC Board looks forward to returning to in-person meetings at the earliest possible time while complying with CDC guidelines. I know it has been the norm versus the exception when I recognize masked people in public that I haven't seen in years! I look forward to seeing smiles again.

The AARC continues to research the opportunity to obtain grants to support the AARC mission. Projects to support the mission include upgrading the MESH network, statewide HF SHared RESources (SHARES) capability to rural Alaska, improvements and upgrades to the Radio Science and Operation Center (RSOC), upgrades to the AARC Mobile Telecommunication Vehicle (MTV), with more to follow.

Operations currently hosted at the RSOC facility include the Wednesday morning SHARES Net, Wednesday evening South Central Simplex Net, and the Alaska

Emergency Frequency Net (held on the last Saturday of the month on 5.1675 MHz). We are looking for additional operators for these nets, which require a 6-week monitored, hands-on training period (1 time per week). Please contact our Station Manager TJ.Sheffield@kl7aa.org for more information.

Please remember the AARC is a member/donation funded organization. Rough math for 150 members at \$12/year equals \$1800. Almost a one-month cost to lease the RSOC facility and not to include site utilities, and repeater site costs to name a couple. Many of club expenses have been covered by your AARC Board members who view the AARC as a valuable organization and believe in its growth.

I am very fortunate to have a Board of Directors and Organizational group that is fully committed to the club, facility, and future. This includes maintenance of the RSOC facility (yes, cleaning toilets and scrubbing floors included. Volunteers are welcome!), care of the AARC rolling stock, and care of the AARC communication equipment to name a few.

Please consider volunteering for a Newsletter Editor position or a Club Secretary position in the organization. These roles are currently being filled by volunteers and a permanent fill in for these would be appreciated.

Richard Tweet KL2AZ, AARC President

COVID-19 and AARC Meetings

Protective Measures

Masks – mandatory. Vaccinations and vaccination boosters – highly recommended.
Handwashing - Recommended

Meetings and Events

Group activities at the RSOC continue to be modified. Board meetings, general membership meetings, finance meetings, development committee meetings continue to be held via Zoom. Civil Air Patrol meetings are held under the guidance of current CAP guidelines. Contact info@kl7aa.org with any questions.

Operations and Procedures

Group gatherings at the RSOC for the purpose of scheduled activities such as participation in SHARES as well as acting as net control for the South Central Simplex Net have been modified. Operators should not report to the RSOC unless they have coordinated with Station Manager TJ Sheffield, KL7TS. Contact info@kl7aa.org with any questions.

Public Service Activities

Members of the AARC provide communications and logistics support for a host of events throughout the year. Usually during the warm months. These events are usually a charity fund raising race.

What exactly do we do at these events?

- We support the charity that is running the event.
- Emergency Communications Training for us. There is almost no better practice available for disaster Emergency Communications (EmComm) operations than a live sporting event! Equipment is put to the test every year to keep it running well and to keep improving it. Each time an Anchorage Amateur Radio Club member deploys, he or she gains valuable experience on what works well, and what doesn't. We must be ready for the unexpected, the unusual.
- Situational awareness: A few minutes after the race starts, the race committee does not know what is happening on the course. We are their eyes and ears on the trail. The ham radio volunteers give updates as the leaders pass by. Should anyone have problems, they can report to a ham radio volunteer, and we can work to solve the problem. Sometimes racers drop out of the race. If they drop at an aid station, we can report the name and bib number in case family or friends are looking for them.
- Safety: We do not worry much about the elite athletes at the front of the pack. We are more concerned with the racers at the back of the pack that are not sure that they will even finish the race. We don't leave until every racer is accounted for. This being Alaska, there is a possibility of bears and moose on the trail.
- Public relations: Put on a safety vest, grab a clipboard and a handheld radio and you are now an expert. People will now ask you about the race, radios, the weather, geography, history, landmarks, bears, salmon, eagles, and even the "moose breeding grounds"!

- It's rewarding to volunteer your time. You will remember when a marathon runner that is more than 3 hours and more than 24 miles into the race smiles, waves and says "thank you for volunteering".
- It's fun!

Current Service Volunteer Opportunities

It's spring, and it's time to get outside and exercise your technique and your equipment by helping out some local charities with communications support. There is almost no better practice available for disaster Emergency Communications (EmComm) operations than a live sporting event! The Anchorage Amateur Radio Club needs volunteers.

Please volunteer for one or more of the upcoming events:



Saturday, May 7, 2022

53rd Annual Walk & Roll for Hope

The Walk & Roll for Hope has been a vital source of revenue for Hope for the last five decades, raising essential funds to augment the ever-growing unfunded needs that are fundamental to the continuation of quality programs and services. Hope needs your support now more than ever.

Contact Keith Clark, KL7MM – aksunlite@aol.com



Sunday, May 15, 2022

[Gold Nugget Triathlon](#)

More info at: <https://kl7aa.org/gold-nugget-triathlon-2022/>

The Gold Nugget Triathlon mission is dedicated to improving the lives of women and girls through athletics. It is one of the largest women's triathlons in the US.

The full triathlon will start at Bartlett High School on Sunday with around 1,220 participants.

[Click Here to SignUp for the GNT](#)

Contact: Walter Yankauskas – KL7WY Cell: 907-351-3992 walteryak@gmail.com



Saturday, June 11, 2022

[Alaska Run for Women](#)

More info at: <https://kl7aa.org/alaska-run-for-women-2022/>

To raise money for and awareness of breast cancer and women's health, and to showcase the talents of Alaska's women athletes.

[Click here to SignUp for the AKRFW](#)

Contact: Walter Yankauskas – KL7WY Cell: 907-351-3992 walteryak@gmail.com

Southcentral Simplex Net

This area reserved for Net Manager, KL7TS

[See the Southcentral Net Log here](#)

Hamfest Happenings

Finally! After over a decade!

The Anchorage ARC/RSOC

Is Planning a late summer 2022

Hamfest and Swap Meet

We are presently in contact with Arctic ARC, MARA Motley Picnic, and Moosehorn ARC to coordinate schedules. We should know the exact dates for the Club hamfests within the next month, and hopefully, we can offer a great summer of hamfests coordinated for the most convenience possible.

We will be hosting the Anchorage ARC at the Radio Science and Operations Center (RSOC) – this is the former Anchorage FCC Monitoring Facility.

The RSOC is truly an amateur radio gem that we want to show off to the community and fellow Hams. Right now we are swamped with radio gear that we will sell (or give away) at the flea market. We also plan to have workshops and VE sessions. At this point we are planning for one very busy day perhaps in late August.

WE NEED HELP

To mount this effort we need all the volunteers we can get. Please consider helping out as a:

- Hamfest Committee Member
- Workshop Provider
- Volunteer Examiner (if you are credentialed)
- RSOC site preparer
- Advertising Coordinator
- Prizes coordinator

- Housing Discount Coordinator
- and anything else you may suggest.

Please contact John Bury, KL7QZ, at <johnburyak@gmail.com>

As we gather our information and make decisions, we will keep you informed by the Anchorage ARC website and newsletters.

Our goal is to provide an Alaska Summer of coordinated Hamfests.

Please help us out.

See you this summer. 73

John Bury, KL7QZ

Terry Reynolds, AL7CE

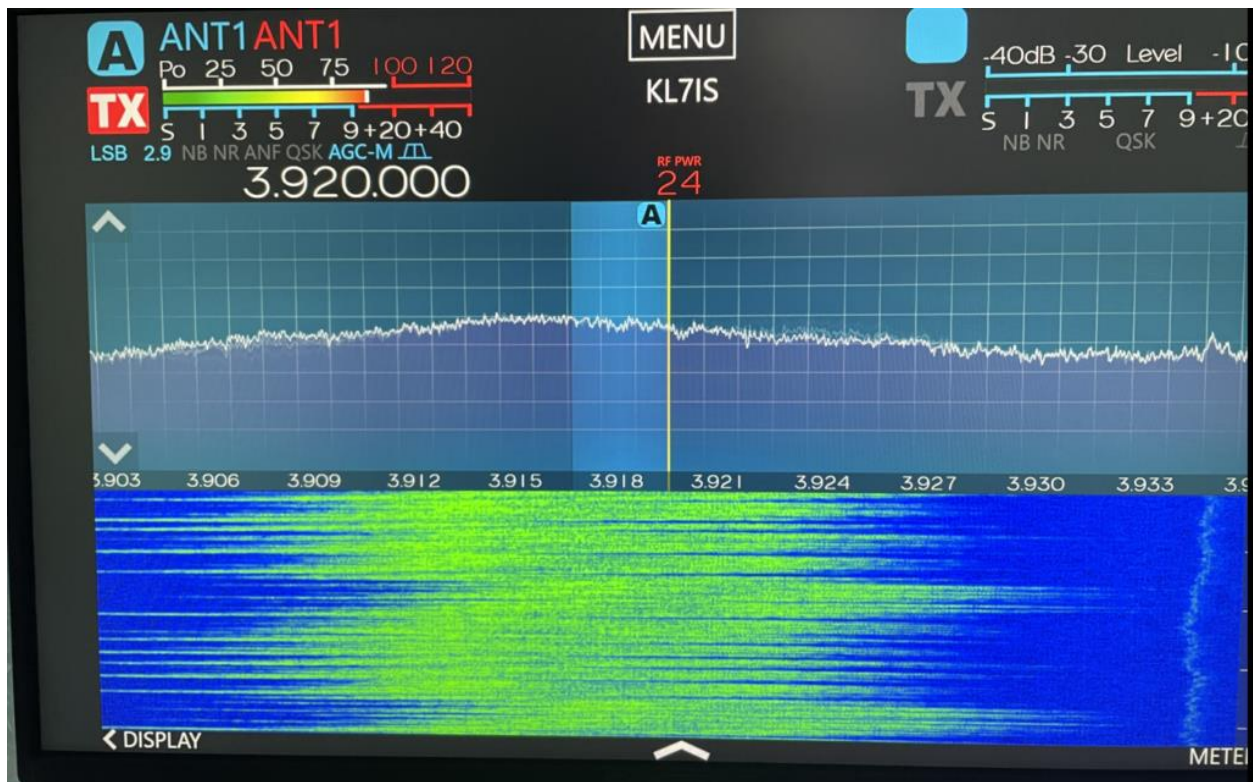
[From the Blog](#)

[KL7IS Needs Help – Extreme 80 Meter Interference](#)

Posted By *Kent Petty* On April 22, 2022 @ 11:17 AM In Direction Finding, Interference

Posted by: Kent Petty, KL5T on behalf of Pete Pritchard, KL7IS
April 22, 2022

Is anyone else seeing this kinda thing parked right over 3920? Started about a week ago that I can tell...at times 10 above or 10 below...but makes Snipers a bust for me.



After a bit more checking, I'm seeing this show up about every 300 kHz or so up and down the band (3120, 3360, 3650, 3920, 4200, 4440, and it goes on from there)

Looking at it, any idea what might be the cause?

This is off an inverted V wire (so I'm not able to direction-find), Mid-town Anchorage.

If you have some sense of that this is or a good way to attack this problem, please contact me at KL7IS@arrl.net

Pete Pritchard/KL7IS

New Anchorage 220 MHz Repeater Up for Testing

Posted By *Kent Petty* On April 20, 2022 @ 10:45 PM In Repeaters |

By: Kent Petty, KL5T
Written: April 20, 2022

Back at the end of October of 2021 we ended up “losing” all three of our repeaters at our South Anchorage Glen Alps site due to some kind of power surge. We managed to get the 2-meter and 440 machines back on the air fairly quickly, but the 220 machine had more extensive issues. We decided to purchase a new 220 repeater from Bridgecom through the donations of several very generous members.



The new repeater has been in hand for a while now just waiting for final programming. We retrieved the cavity filters from the Glen Alps site for the 220 repeater last week and

made a visit with Mike, KL6M to check them out as we wanted to make sure they were properly configured. Mike did a quick check and confirmed they were optimized. Since then, we put the new 220 repeater on the bench, programmed it, and installed it at the RSOC for “burn-in” testing.

For those of you with 220 MHz capability, please try to work the 220 repeater to test it out. Let us know how it seems to be working. If all seems well, we will haul it up to our Hillside South site and install it there with a new antenna that was donated to us by the EARS Club (thank you EARS!).

Repeater info is as follows:

Repeater Output (TX) Frequency: 224.94 MHz

Repeater Input (RX) Frequency: 223.34 MHz

Tone: None

Thanks for checking it out!

RSOC Tower Work – SAMS Loop Back to 100 Percent

THE FOLLOWING IS A REPORT FROM KL7TS

Our RSOC Station Manager, TJ Sheffield (KL7TS) and BATMAN, Dave Webb (N9AIG) attacked the issue we had with the HF SAMS Loop antenna being caught up on one of the AB-105 tower guy wires at the RSOC today.



TJ climbed the tower and Dave acted as ground crew. They used the two Klein Tools “Chicago Grips” that TJ purchased from KF7P MetalWerx to get the guy line down. Once they disconnected the bottom end, they laid the guy wire along the vertical face of the tower and TJ went up to about the 40’ level and “whipped” the stray wires on the guy fittings so it (hopefully) won’t snag the SAMS loop again.

Dave brought his ratcheting wire rope come-along so they could take tension off the guy wire, then tighten it up again when they were finished.

Just a great example of our great member volunteers in action to keep the RSOC in super operable state! That Loop antenna is a great performer for our in-state NVIS needs on 80 through 40 meters and above.



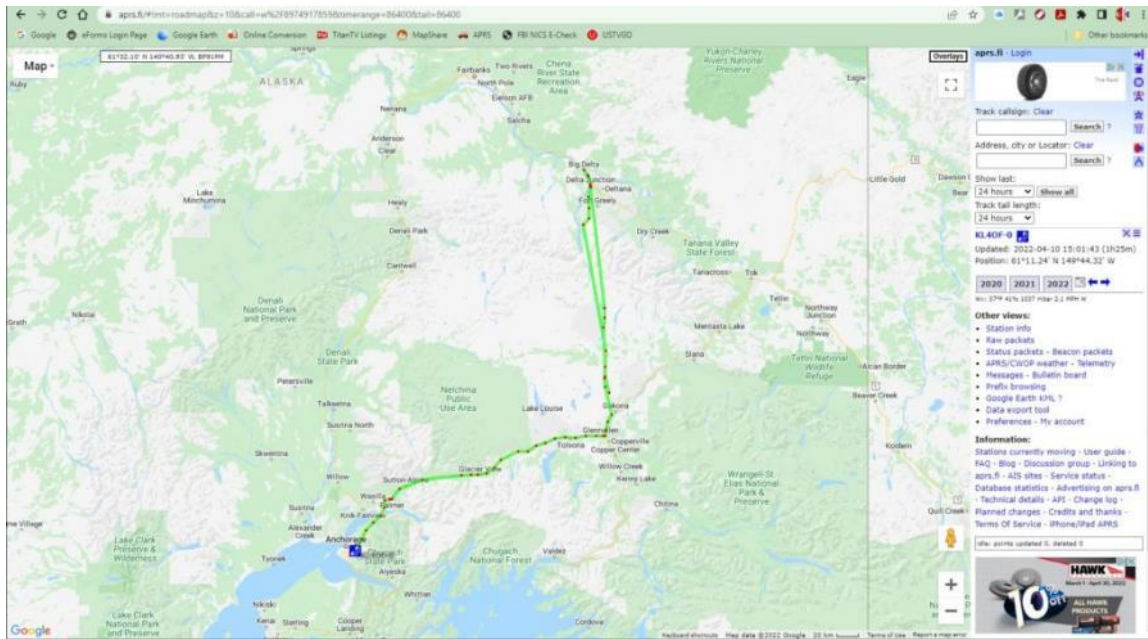
Looking for APRS Options Without a Radio?

By: John Lime, KL4OF

Written: April 10, 2022

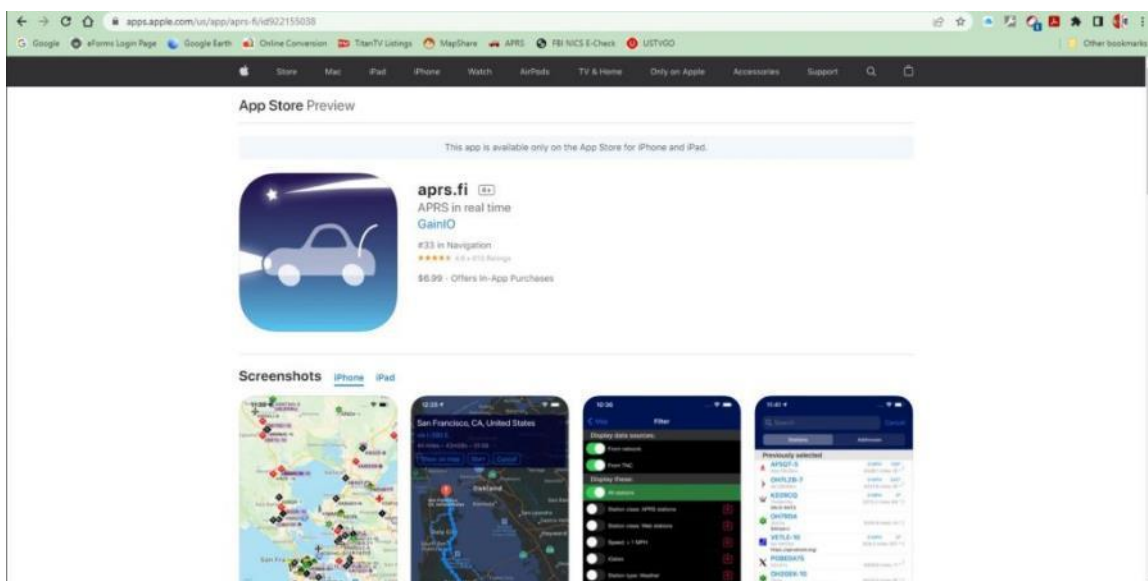
Most of us know roughly what APRS is, or at least have heard of it. Some of us are pretty knowledgeable about it and some even have dedicated radios and other related hardware for running it in our vehicles or uploading the data from others onto the APRS.FI [1] website. Are you interested in learning more about it? How about running your own APRS node? I have a 2-meter radio and an APRS “controller” that I need to set up in my new vehicle, but what to do when in the wife’s car? Or when on foot/bike/ATV?

I have known about an IOS app (iPhone and iPad only for this app) for a while, and I pay them \$1.99 per month (it is run by the same group that runs the APRS.FI [1] website), but this weekend I took a trip with the wife from Anchorage to Delta Junction and remembered to turn the app on before I left.



I had it running on my phone with my InReach app and the Apple Music app (because we all know, there's little to no AM/FM radio on that drive) at the same time. Both the APRS.FI [1] app and the InReach app tracked our travels without issues (well, mostly, the InReach app turned its tracking off on the way back for some reason). If you look at the APRS.FI [1] website and pull up the dates 04/09/2022 and 04/10/2022 you will see a track to/from Delta Junction for me (KL4OF-0) with a little blue phone icon. After talking to Kent (KL5T), using the APRS.FI [1] website on your phone/tablet will work as well, but it has to be the active app/screen, or it won't update your position.

I just wanted to share this as an option for those looking into APRS or wanting more choices in that area. In the Apple App Store, look for APRS.FI [1].



It is free to use to track others but to transmit your location, there is a fee (\$1.99/month, if paid yearly it's a bit less). I have Googled "APRS apps" and found other options for both Apple and Android products, so there are other choices, I am just sharing my experience with the one I chose to get.

73

John Lime III
KL4OF

10 Meter Opening to Australia, 4/6/2022 1700L

By: Kent Petty, KL5T
Published: April 6, 2022

Just received a phone call from Tom, NL7OW in Clam Gulch that there appears to be an opening on 10 meters to Australia RIGHT NOW!

Alaskan HF HAMs....activate on 10 meters!

73,

Kent, KL5T

**---- THERE HAVE CERTAINLY BEEN OTHER 10-METER OPENINGS OF LATE,
KEEP YOUR EARS PEELED!**

9-Year-Old KL5IX Tells Her Story

Posted by: Kent Petty, KL5T
Date: April 4, 2022

Hi, my name is Audrey Crocker, I am nine years old, and I was invited by Kent Petty to tell what got me started on ham radio, how I studied, and what other goals do I have?

My mom, KL5AF, has an extra class license. She is and was Always talking about the radio, telling us every time she talked to Europe. She talks to AL7JX, our neighbor Glen, on the VHF radio every day, which is what made me want to get my license.

Mama ordered a technician textbook for me. After a couple weeks my textbook arrived. The night my textbook arrived I read chapter 1. The night after that I read a section out of chapter 2. And my mom showed me how to go to ARRL.org and study each individual section. After that, I read a section every night or almost every night. Then I would study the section and previous sections. If I had questions, I would ask

my mom, dad, or Glen. I won't bore you with every single section I read, but eventually I finished chapter nine. After I had reviewed chapter nine several times I started the practice tests. Most of the time I got a passing score and eventually I got really good and got scores in the 90's. After a few weeks of taking tests my mom said she knew I would pass and a few days later she scheduled my test, which took place on March 24. I got 34 out of 35. I also put together kits and soldered them. I learned to solder which was fun, and it also taught me about circuit components and how circuits work.

As for my goals I just like to chat, I am learning CW, and I would like to do DX.

73, KL5IX.

FCC Provides Additional IMPORTANT Info on Upcoming Licensing Fees



Written by: Kent Petty, KL5T, Chairman, Anchorage ARC VEC

Date: April 1, 2022

The FCC contacted Volunteer Examiner Coordinators (VECs) today with additional guidance and clarification regarding the upcoming ULS Application Fees effective April 19, 2022. They addressed several questions VECs presented during a meeting held with VEC last week.

The following items are noteworthy:

1. The submission response files provided to VECs will indeed have an indicator that confirms to the VEC that the application was indeed submitted successfully and that the application is pending payment from the applicant.
2. There will be NO FEES implemented at this time for modification applications. This includes changes to contact information such as addresses, telephone numbers, e-mail addresses, or even name changes, AND most importantly, NO FEES for LICENSE UPGRADES.
3. Applicants have 10 days to make electronic payment to the FCC when an application number is created due to a filing. If no payment, that application will be DISMISSED. What is the impact? Applicants will not receive a license. If they approach a VEC within 365 days with their Certificate of Successful Completion of Examination (CSCE), that VEC could work with the applicant to complete a new form 605 and make a new submission to the FCC. Alternatively, the applicant could retake and pass the exam(s) if they didn't have a CSCE, or, if the CSCE was more than 365 days old, they would HAVE to retake the exam(s).

4. When will applicants receive the e-mail from the FCC after the File Number is assigned? The FCC stated that if the application is received by them during a weekday (basically Monday mornings through Friday evenings – exact times are not clear), the e-mail will be sent to the applicant as soon as the response file is sent to the VECs. If the application is received by the FCC on the weekend, the e-mail to the applicants will be generated on Monday following the weekend.

5. There was no specific information provided by the FCC stating when a callsign would actually be issued following payment from an applicant. It appears we will need to wait and see. We have submitted a request to the FCC for clarification.

We will provide additional information if/when it becomes available.

By: Kent Petty, KL5T, Chairman, Anchorage ARC VEC
Date Written: April 20, 2022

Seems like nothing ever goes off without a hitch.

The FCC indeed attempted to implement the new amateur radio license \$35 filing fee on Tuesday, April 19. Unfortunately, we found out straight away that things were not working out as planned. We made our first application submissions on Tuesday morning (right after our Tuesday morning examination session). The files were “picked up” by the FCCs processing system, but, as luck would have it, that’s as far as things went. No files have actually been processed or licenses issued or upgraded by the FCC since implementation.

We did finally receive a message from the FCCs ULS EBF Team (Universal Licensing System Electronic Batch Filing) this morning (April 20, 2022) advising that the Electronic Batch filing system is currently down and for all VEC’s to refrain from uploading files while they work to resolve the issue. They advised that they would send us another communication when the system is back up.

So as it stands, we will continue our daily testing sessions but are holding the batch file submissions until told to submit by the FCC.

Hopefully more to follow soon

All Amateur License Filings On Hold

Posted By *Kent Petty* On April 22, 2022 @ 7:30 AM In FCC Actions, License Testing, VEC

The FCC attempted to bring the new license filing fee process online on April 19 but problems ensued with the move on the FCC systems. Several applications that we did

submit have been processed by the FCC; however, the FCC has advised us to cease sending in new license applications until further notice.

We confirmed today that the FCC indeed does NOT want us to submit any license applications for any purpose until they notify us to resume.

Still holding our breath.

FCC Batch Filing Resumes

Posted By *Kent Petty* On April 22, 2022 @ 11:35 AM In FCC Actions, VEC

Posted by: Kent Petty, KL5T, Chairman, Anchorage ARC VEC
April 4, 2022, 1134L

We just received word that the FCC EBF system is back online and functioning normally so we can resume uploading license applications.

We just submitted batch files that had been stacked up since Tuesday....crossing our fingers that these all process OK.

UPDATE – Call for Expertise/Assistance – Linux/Raspberry Pi



Update posted by: Kent Petty, KL5T
Date 2/11/2022

Thanks to help from Eugen (KL3RR) and Mike (KL3HY) this afternoon we solved the issue with a very important addition we've been working on to improve the capability of our Anchorage area mesh network.

On the mesh we use a really useful application called "MeshChat". MeshChat is indeed a "chat" or texting service, but it ALSO provides a file server to us. Now, while the file server has been nice, it was limited in size to just 500 kB because the application was installed directly onto mesh nodes, thus there is limited storage space. Oh...yes...I forgot to mention that we do install multiple iterations of MeshChat for redundancy purposes.....the cool thing is that each instance syncs with all the other instances in case of a node failure. Back to the story.

To improve MeshChat and to give a real, useful file server capability, you can ALSO install it on a Raspberry Pi. Why is that important? Because we are no longer limited to 500 kB of storage space and are limited only by the storage capacity provided on the Pi. In our case, 23 GB! So, in the end, we have indeed upped the game considerably by adding this important capability. "AKMeshChat", as it is identified on our mesh network, is available to any user on the mesh.

So, thank you Eugen and Mike for the terrific help today! Couldn't have done it without you.

If you are interested in learning how you can get onto our mesh network and/or be a contributor to services that we might want to put on the mesh, please drop a note to info@kl7aa.org.

Thanks and 73

Posted by: Kent Petty, KL5T
Date: 2/7/2022

This is a call for assistance with a very important Emergency Communications project that involves a Raspberry Pi4 and our MESH network. We are attempting to run a software application that is known to be fully operable on the MESH, but we are having some difficulties with what appears to be permissions.

This may be a simple fix....we hope...for the right person.

There are other Raspberry Pi projects that also might be of interest as well that are associated with our MESH network.

Please contact Kent at treasuer@kl7aa.org if you are willing to give it a go.

You will be named a hero!

Thanks in advance and 73

[A Look Back](#)

One of our superstars on our current Volunteer Examiner team is JD Delancy, W1JD. JD currently lives in Maryland, but is a "Ramrod" for our VE program, doing a ton of back room work on top of leading testing sessions.

You might ask why is a guy in Maryland so engaged with our VE program? Well, he is a club Life Member and he goes waaaaaaay back with our club. As a matter of fact, he was on the Board of Directors when we first became a VEC. But more than that, he was selected as the AARC "Ham of the Year for 1983"! Check out this extract from our February 1984 newsletter:

*** H A M O F T H E Y E A R ***

JD Delancy, K1ZAT/NL7 was selected as the AARC "Ham of the Year for 1983" during the general membership meeting on 6 Jan 84. The selection for this honor is made thru a closed ballot vote without nominations or campaign speeches. The selection represents the spontaneous feeling of the general membership towards an individual and his/her contributions to the club.

JD has been involved in the AARC since he first arrived in Anchorage in January 1980. He fully supports all public service events that the AARC is involved in. The annual Messages-to-Mom project and the Iditarod dog sled race are examples of involvement. During the 1983 Mothers Day message project JD processed and transmitted over 1,600 of the approximately 3,000 messages collected.

JD is the holder of an Extra Class license and has held an amateur license, with the same callsign, since 1961. He is a member of the Armed Forces with over 18 years active service in the Air Force and is a member of the AARC Board of Directors. JD is one of the control operators for the KL7AA repeaters and was the spark plug behind the establishment of the only open 220 Mhz repeater in Alaska. His contributions to the club and its activities reflect great credit upon himself and the AARC, and this is reinforced by your selection of him for the HAM OF THE YEAR award.


Wilse G. Morgan, KL7CQ
President

It turns out that JD and I served at the 6981st ESS on Elmendorf back in the day. I just just a young lad as an airman, but he was already a sourdough!

Thanks JD for all you've done and all that you continue to do!

RSOC Operations

This area reserved for Station Manager, KL7TS

Heavy Rolling Stock

This area reserved for Heavy Rolling Stock Manger, KL7MM

Battery Lab

Written by: Dave (Batman) N9AIG

April 19, 2022

The battery lab always has a project going. Here's a list of projects that were completed recently:

1. Replaced the basement rack UPS that houses mesh equipment and the security system. The old UPS failed, and its ailment was pinpointed to the main PC board. The unit was old enough that it was decided to replace the unit.

2. Replaced 45 Ah Deka batteries with 55 Ah Duracell batteries in the NE operating station UPS. Four (4) batteries were replaced as the existing batteries were worn out. This APC UPS was modified to accept an external battery pack to extend its ability to provide power to critical operating infrastructure during power outages.

3. Replaced batteries in the office APC UPS. I think most readers of this newsletter know, when the batteries are worn out, the UPS "chirps" and in order to keep your sanity, you replace the batteries.

The AARC periodically receives batteries as donations, and these are tested by doing a discharge test by a CBA IV. The CBA IV is a battery tester from West Mountain Radio that is also used to ensure that our current inventory of batteries are still in serviceable condition. Dave N9AIG, just went through the inventory at the RSOC and sorted out those batteries that were still serviceable and those batteries that needed to be recycled. Batteries Plus will recycle old lead-acid batteries at no charge. The municipality will also recycle batteries at their facility at the landfill (one car-type battery/day).

Past projects:

1. Installed a 12 VDC buss in the south operating station using two 100 Ah batteries and a Powermax power supply to energize dc loads. The Powermax device comes from the RV industry and had to be modified with RF/EMI filters as it was not radio quiet.

2. Installed another APC UPS with external batteries fitted with EMI/RFI filters.

Robust Packet Gateway

This area reserved for Robust Packet Gateway Manger, KL1V

Club Repeaters

The club owns and operates 6 voice repeaters, including 5 analogue and 1 digital voice repeater. Following is their info and status from south to north:

2-Meters – “Glen Alps” repeater site

- Location: Below Flat Top Mountain, just above the Flat Top trail parking area.
- Mode: Analogue FM
- Callsign: KL7AA
- Transmit Freq: 146.94 MHz
- Receive Freq: 146.34 MHz
- Tone: 103.5 Hz
- Status: Fully Operational

220 / 1.25 - Meters – “Glen Alps” repeater site

- Location: Below Flat Top Mountain, just above the Flat Top trail parking area.
- Mode: Analogue FM
- Callsign: KL7AA
- Transmit Freq: 224.94 MHz
- Receive Freq: 223.34 MHz
- Tone: None
- Status: New repeater is operational from the RSOC for testing and burn-in. See the blog post.

440 / 70-Centimeters – “Glen Alps” repeater site

- Location: Below Flat Top Mountain, just above the Flat Top trail parking area.
- Mode: Analogue FM
- Callsign: KL7AA
- Transmit Freq: 444.70 MHz
- Receive Freq: 449.70 MHz
- Tone: 103.5 Hz
- Status: Operational but degraded due to use of an alternate antenna system.

440 / 70 Centimeters – “Hillside South” repeater site

- Location: On the south Anchorage hillside to the north of Flat Top Mountain.
- Mode: Digital FM - DMR and DStar
- Callsign: KL7AA
- Transmit Freq: 444.20 MHz
- Receive Freq: 449.20 MHz
- DMR Info:
 - Color Code: 1
 - Timeslot 1 (TS1): Open for any Brandmeister (BM) dynamic talk group
 - Timeslot 2 (TS2): Static talkgroups are Alaska Statewide (3102) and Anchorage (311181) full time. Please do NOT activate any other talk groups on TS2.
- DStar info:
 - RPT1: KL7AA B
 - RPT 2: KL7AA G
 - Not linked to any reflector by default. Access to all reflectors and XLX modules is permitted.
- Status: Fully operational

2-Meters – “Grubstake” repeater site

- Location: Hatcher Pass
- Mode: Analogue FM
- Callsign: WL7CVG
- Transmit Freq: 147.33 MHz
- Receive Freq: 147.93 MHz
- Tone: 103.5 Hz
- Features: Cross-linked with the 443.9/448.9 repeater
- Status: Operational, but there are reports of distortion on the transmitted signal. We are working to coordinate a site visit to investigate the problem.

440 / 70 Centimeters – “Grubstake” repeater site

- Location: Hatcher Pass
- Mode: Analogue FM
- Callsign: WL7CVG
- Transmit Freq: 443.90 MHz
- Receive Freq: 448.90 MHz
- Tone: 103.5 Hz
- Features: Cross-linked with the 147.33/147.93 repeater
- Status: Operational, but there are reports of distortion on the transmitted signal. We are working to coordinate a site visit to investigate the problem.

Grubstake Repeaters Fund

Current Fund Reserves: \$517.64
Funded through Date: August 1, 2022

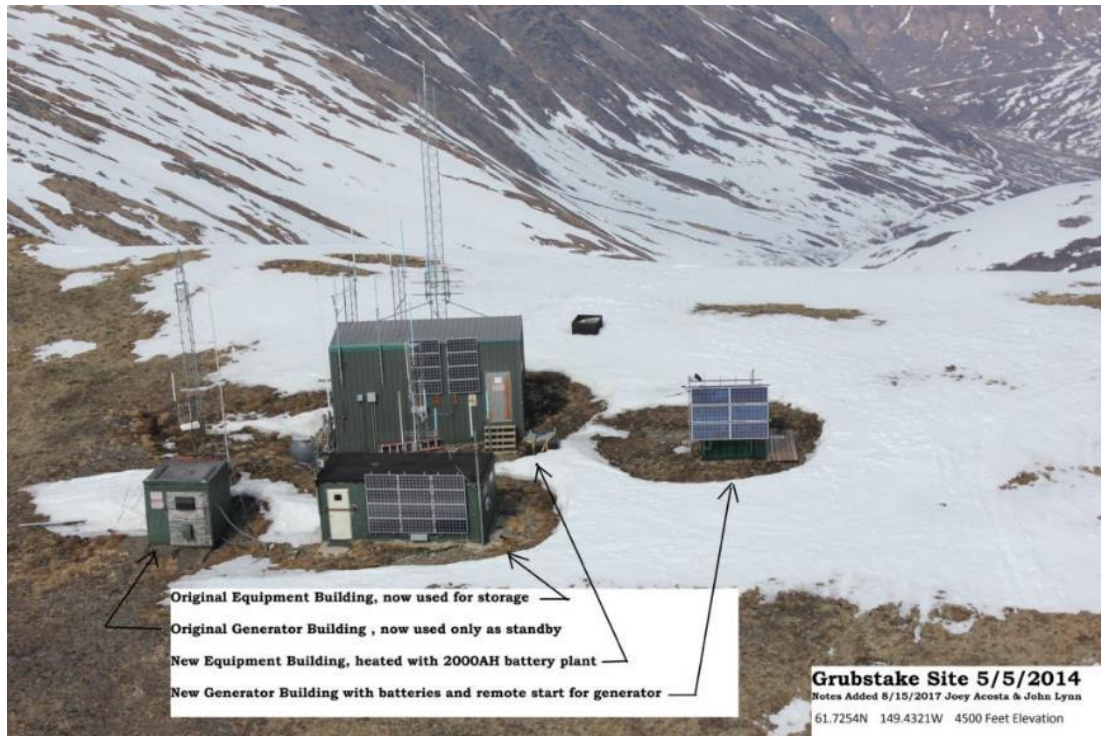
Donate to the Grubstake Repeater Fund: <https://kl7aa.org/product/grubstake/>

AARC currently funds the Grubstake wide-area repeaters, which provide coverage across the Matanuska-Susitna Valley and into Anchorage.

Frequency	Tone	Callsign	Features
147.33+	103.5	WL7CVG	Cross-banded to 443.900
443.90+	103.5	WL7CVG	Cross-banded to 147.33

As many of our members may know, these repeaters serve a very, very wide area. From far north in the Mat-Su Valley, to the Anchorage bowl, and even to the Kenai Peninsula, they serve us well. They are important for general ham service, but more importantly, they play a critical role from an emergency communications perspective. The weekly ARES net is even held on 147.33/83 repeater. If the repeaters are “turned off”, there’s no guarantee that they will be, or even can be, turned back on.

We ask for your support to keep the repeaters alive. We need on average about \$2,300 per year to operate these repeater systems (site rent is \$150 per month). So, if you believe these repeaters should be funded and kept alive, we ask you to contribute to help the effort. We also urge you to contact your friends and neighbors, hams and non-hams alike to help.



If sufficient funds are not available, the Grubstake wide-area repeaters will be shut down due to financial constraints. In addition to monthly rental charges, there is a premium charge for getting to the repeater site by helicopter when things go wrong or simply for annual inspection and maintenance.

Other Area Repeaters

Following is information regarding other repeaters in the area:

Frequency	Shift	Tone	Callsign	Location
146.67 MHz	- 600 kHz	103.5	KL7AIR	Elmendorf AFB
146.85 MHz	- 600 kHz	103.5	KL7JFU	Mat-Su
146.79 MHz	- 600 kHz	100.0	KL4RCS	Mat-su
147.30 MHz	+ 600 kHz	141.3	KL7ION	Anchorage
443.80 MHz	+ 5 MHz	DMR TG 3102 TS 1 CC 1	KL7JFU	Wasilla

AARC Mesh Network



The AARC wrestled with establishment of a high-speed mesh network for several years. The Broadband-Hamnet™ (BBHN) group developed a means to use off-the-shelf Linksys WRT54G/GL/GS wireless routers by developing firmware that changes the way the RF decks in these units work. Instead of operating as wireless access points, the radios were used to communicate with other nodes to build an automatically configuring mesh network.

While the technology worked and converting these old “blue boxes” to MESH function is fun in its own right, it is somewhat cumbersome and not without expense (antennas, weatherproof boxes, power feeds, etc.). Additionally, the stability of the boxes was sometimes a problem. The developers of BBHN software were determined to move this technology to the next level. They believed that switching their firmware development focus to newer, more robust gear offered by the Ubiquiti company was a better choice for Mesh development. The new group is called the Amateur Radio Emergency Data Network (AREDN). The AREDN effort has proven to be cost-effective, functional, and very well supported. AREDN’s mission is to provide the Amateur Radio Community with a quality solution for supporting the needs of high-speed data in the Amateur Radio and Emergency Communication field. In early 2016, the AARC made the decision to pursue development and installation of an area-wide high-speed MESH network based on the AREDN approach and technology. We urge you to visit the AREDN website at www.arednmesh.org to learn more.

The AARC MESH network is primarily operated on the 3.4 GHz amateur band. While some of that band has been taken away from amateur service, we still maintain the use of frequencies between 3.3 GHz and 3.45 GHz. From a practical perspective, we, as U.S. amateurs, have the band to ourselves. We do have some nodes operating at 5.8 GHz and also have some equipment available for 2.4 GHz.

The first links were installed in early 2016 which connected the former AARC club station on Rowan Street, to a hillside node hosted at AL4G's residence on the Anchorage hillside, to Providence Alaska Medical Center. After that came a node at the Elmendorf Amateur Radio Society clubhouse on Elmendorf, a node at the Anchorage Senior Center, a node at the Alaska Native Medical Center warehouse on Tuttle Road, and finally nodes at Alaska Native Medical Center itself. Additional nodes have been added, and continue to be added. Our hope is to add connectivity to our directly served customers, such as the State of Alaska EOC, the Anchorage EOC, and others, as well as to provide access to our system from the Mat-Su Valley and even the Kenai-Soldotna areas. A most important node installation was that of a Sector node installed on Site Summit; this node provides access to the Anchorage MESH from the MatSu Valley area if anyone there is inclined to do so. A test was conducted from Fire Station 61 Wasilla linking to this Site Summit node where we found excellent signal levels and throughput (about 36 Mbps)



The system has performed phenomenally well. The nodes are easily managed “over the air”, thus virtually eliminating any need to visit a site unless some sort of hardware change or update is in order. We now have a

great tool called “MeshStat” that gives us a quick snapshot of our entire network at a glance. On our major backbone links, we are seeing consistent throughput at 130 Mbps!

Services operating on the MESH include several VOIP telephones with a Raspberry Pi running a PBX (including video call capability), Winlink Post Offices, a very effective chat service, video feeds from IP cameras located at the RSOC, internet access for our DMR repeater, and internet gating for our two area APRS I-Gates. Future services may include a shared file server, more IP cameras, weather station feeds, remote control of HF stations, repeater linking, and more.

The basics of MESH networking are actually quite simple, but the possibilities are endless. We HIGHLY encourage users to install a node if you are able. Your node not only gives you access to the MESH, but also helps BUILD the mesh and enhance its capabilities; your node effectively becomes an integral part of the MESH that can help move traffic more efficiently.

To learn more about the AARC MESH Network and how you can install your own node(s), visit the AARC clubhouse on a Working Wednesday, or contact KL5T directly (mesh@kl7aa.org).

DMR / DStar Repeater

Are you new to DMR, or thinking about getting into DMR? John S. Burningham, W2XAB has DMR primer book out titled, "Amateur Radio Guide to Digital Mobile Radio, 2nd Edition". John provides an excellent explanation of the many new terms and concepts related to digital voice communications. The book is free for download here: <http://guide.k4usd.org>

Remember, the Anchorage ARC operates a DMR repeater located on the South Anchorage hillside. Actually, the repeater will ALSO operate on DStar. Here are the particulars:

Repeater Receive Frequency: 444.20 MHz
Repeater Transmit Frequency: 444.90 MHz

DMR Info:

Color Code: 1

Timeslot 1: Open for any Brandmeister dynamic talk group

Timeslot 2: Alaska Statewide (TG 3102) and Anchorage (TG 311181) full time. Please do not activate any other talk groups on Timeslot 2

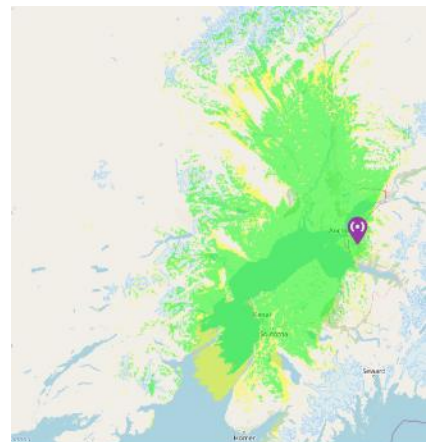
DStar Info:

RPT1: KL7AA B

RPT 2: KL7AA G

Not linked to any reflector by default. Access to all reflectors and XLX modules is permitted

And here is an estimated coverage map for the repeater: If you are interested in DMR gear, CQ Radios offers excellent deals on AnyTone radios as well as excellent hotspots. The AARC is an Affiliate Partner with CQ Radios. Use our discount code of "AARC10" at checkout to get a 10% discount. This will also benefit the club! Here is their main page: <https://cqradios.com/>



AARC Frequency Utilization Plan (FUP)

Many members, especially new members to the area, often ask about frequency usage here in Anchorage. They are typically most interested 2-meters and 440 MHz FM. The club has been using and updating a Frequency Utilization Plan, or "FUP", for quite some time to help us standardize operations and even memory assignments on our radios. This plan is based on the Southeast Repeater Association (SERA) band plans.

Our current FUP for 2-meters and 440 MHz is available here as an Excel file and as a PDF (see the links below). Please note that in no way or form are we suggesting that this setup must be used by anyone; it is simply a guide we follow as a club (especially for local EMCOMM work) and have found it useful to help keep things organized in our area. If there are obvious errors noted, please let us know.

Current FUP in Excel format:

<https://kl7aa.org/wp-content/uploads/2021/10/2021-10-26-AARC-144-and-440-MHz-Frequency-Utilication-Plan.xlsx>

Current FUP in PDF format

<https://kl7aa.org/wp-content/uploads/2021/10/2021-10-26-AARC-144-and-440-MHz-Frequency-Utilication-Plan.pdf>

APRS Digipeater / Gateway



The AARC, EARS, and MARA all support [APRS](#) in our local area. The AARC operates an APRS Digipeater / I-Gate at our Hillside South site (KL7QN's residence) which is linked to the internet via our MESH network. EARS operates a Digi / I-Gate from their club station on Elmendorf AFB, and MARA operates a Digi in the Valley. As with all APRS activities, the operating frequency is 144.39 MHz.



Kevin Opalka, KL1V, has graciously agreed to be our APRS guru. Feel free to reach out to Kevin at [aprs \(at\) kl7aa.net](mailto:aprs@kl7aa.net).

Swap & Shop

Yaesu FT290RII and FT817

Contact: John Marton, AL7LN, 907.947.7906, jhm@alaska.net

Yaesu FT290RII: I haven't been on the air with this unit for many years, but it should still work. Includes the battery case which has signs of some leaking batteries in it at one time. Asking \$125; no manual for it. Still have the original box for what that's worth.

Yaesu FT 290RII (Pic and info from Universal Radios website (<https://www.universal-radio.com/catalog/hammulti/ft290rii.html#feature>))

VEC Report

The FCC implemented the new \$35 amateur license fee on April 19, 2022....well, that is, at least they tried to implement it. Turns out they have had some sort of glitch in their system and it didn't work successfully until April 22, 2022.

For those that don't know, the new \$35 fee applies to new licenses, license renewals, and vanity callsign applications. There is no fee for simple administrative updates

(such as contact information updates) or for license upgrades. Here is how it is supposed to work for new license testing in a nutshell:

1. Take and pass your examination
2. VEC makes submission to FCC
3. FCC processes the application then sends an e-mail to the applicant telling them that they have received the application and it is time to pay the FCC \$35 fee.
4. Applicant logs on to CORES with their FRN info
5. Applicant pays the fee which is their waiting for them after they log in.
6. License is generated.

However, we don't yet know for sure this is how it will work as we have yet to see a successfully processed application. Still holding breath.

MORE TIDBITS ABOUT THE ANCHORAGE ARC VEC.....

Did you know that the Anchorage ARC Volunteer Examiner Coordinator (VEC) was the first VEC in the nation on February 27, 1984? Check this out:



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET N.W.
WASHINGTON, D.C. 20554

2603

News media information 202/254-7674. Recorded listing of releases and texts 202/632-0002.

February 27, 1984

ANCHORAGE AMATEUR RADIO CLUB NAMED FIRST VOLUNTEER EXAMINER COORDINATOR

The Commission has appointed the Anchorage Amateur Radio Club, Anchorage, Alaska, as its first volunteer examiner coordinator (VEC). In a new program authorized December 1, 1983, examinations for amateur operator licenses, above the Novice Class, may be given by volunteer examiners drawn from the private sector. VEC's accredit the volunteers who will administer the examinations and coordinate the entire program in a specific region. The Anchorage club had contacted the Commission on December 6, 1983, requesting appointment as a VEC for the State of Alaska, FCC's Region 11.

Also named as VEC's were the Dayton Amateur Radio Association, Dayton, Ohio (Region 8); DeVry Amateur Radio Society, Chicago, Illinois (Region 9); Director, Military Affiliate Radio System (MARS), Cidra, Puerto Rico (Region 12); and Metroplex Amateur Communications Association, Leonia, New Jersey (Region 2).

Qualified amateur radio operators who wish to volunteer their services as examiners may contact the newly-appointed VEC's directly for accreditation.

Announcement of VEC's for other FCC regions will be made upon their appointment.

- FCC -

For information call John Small at (202) 632-4964

Now, down to business:

We are still conducting nearly all of our examinations via “remote” means and are testing folks all over the country and even all over the world. Sessions are being held two to three times daily from Monday through Saturday. We do hope that we can also start to add in-person sessions soon, but COVID has us by the tail still, although the end of the tunnel may be approaching.

Here are the stats for 2022 thus far:

- Number of Sessions: 442
- Number of People Tested: 422
- Number of New Licenses: 292
- Number of Upgraded Licenses: 130
- Number of Passed Exams: 448
- Number Element 2 Passes: 292
- Number of Element 3 Passes: 114
- Number of Element 4 Passes: 42

Number of credential Anchorage ARC Volunteer Examiners: 90

Number of Anchorage ARC VEC volunteer hours: 2,994

Do you want to become a Volunteer Examiner (VE)? Here is the criteria:

- You must be at least 18 years of age;
- You must hold a valid FCC-issued Amateur Radio license of General, Advanced, or Extra class;
- Your license must have never been revoked or suspended for cause;
- If you intend to be part of our Remote VE team, you’ll need to have a suitable computer with camera, microphone, and internet bandwidth to participate in “remote” exam sessions.
- If you intend to be part of an existing in-person VE team, you MUST be sponsored and approved by the Lead VE from an established team you will be serving with prior to applying (i.e. sponsorship) which means the existing team must be established and approved by the Anchorage ARC VEC Chairman; and
- You must agree to abide by the policies and procedures set forth by the Anchorage ARC VEC

Check out the following page to read more about becoming a VE and to apply:

<https://kl7aa.org/vec/become-accredited/>

Donations – How To Support Us

The AARC / RSOC can't operate and maintain the resources we own without adequate funding. Expenses include rent for repeater sites, web and telephone services, Radio Science and Operations Center facility rent, insurance, vehicle and generator fuel, vehicle registration, etc.

We can accept tax-deductible donations as we are a 501(c)(3) charitable organization. We are happy to accept direct donations or contributions but are always exploring other ways to generate the needed income to fund our important activities.

Here are some ways you can support us:

- Donate cash here: <https://kl7aa.org/donations/cash/>
- Send us a check written to "AARC" mailed to:
AARC
PO Box 190192
Anchorage, AK 99519
- Donate a vehicle (even a non-running junker), or a 4-wheeler, or a snowmachine, or a boat, or an RV, etc., etc. How? Check this page out: <https://kl7aa.org/donations/aarc-rsoc-vehicle-donation-program/>
- Use Amazon Smile and Name the AARC as you charity. How? Check this page out: <https://kl7aa.org/donations/amazon-smile/>
- Link your Fred Meyer Rewards Card to the Anchorage Amateur Radio Club under the Fred Meyer Community Rewards Program. How? Check this page out: <https://kl7aa.org/donations/fred-meyer-community-rewards/>

Our Partners

CQ Radios

AARC is an Affiliate Partner with CQ Radios Communication Products. CQ Radios offers a great selection of the latest Anytone radios and accessories and DMR hotspots for a great price. Plus, if you use the discount code of "AARC10" at checkout, you'll get a 10% discount on your purchase and benefit the club as well!



<https://cqradios.com/>

SignalStuff

AARC is an Affiliate Partner of SignalStuff, the producer of the Super-Elastic Signal Sticks antennas (for handi-talkies), Super-Elastic Signal Stalk antennas (mobile), and the Signal Staff Collapsible OSJ antenna (fixed). They also carry an assortment of SMA adapters. <https://signalstuff.com/>

