Anchorage Amateur Radio Club Newsletter

Next General Meeting

August 1, 2019 at 7pm

Radio Science and Operations Center

6721 Raspberry Road

Anchorage, AK

There will NOT be an AARC General Membership meeting on Thursday, July 4th. Please have a safe 4th of July.

Kenai Peninsula Hamfest is being held on July 20th in Kenai at the American Legion Hall, 902 Cook Ave. (directions on the link).

- Doors open at 10am and close at 3:30pm

- Entrance fee is $5.00 (cash-only) includes one small prize ticket

- Table fee is $10 (cash-only) includes entrance fee.

- Small prizes $1 per ticket

- Grand Prizes (2) $5 per ticket - Drawing at 3:00pm

- All sales are cash-only (two bank atm's only two blocks from hamfest).

For details on what's happening go to:

http://www.kl7uw.com/Hamfest2019.htm

Keep up with the AARC at www.kl7aa.org

ARRL Field Day 2019 is a Hit, Entries Due by July 23

ARRL Field Day isn't over until participants take that final step of submitting their entries. By Thursday at 1800 UTC, nearly 1,400 had done so. The preferred method of submitting a Field Day entry is via the 2019 Field Day Entry Form on the ARRL website. This app, developed and supplied by Bruce Horn, WA7BNM, asks for the call sign used (as well as the GOTA station call sign, if applicable), entry class, number of participants, list of operators, power source and multiplier, claimed bonus points, contact totals by band and mode, and GOTA station operators and contact totals. It also allows the attachment of supporting information for bonuses. In addition, all entries require a list of stations contacted by band and mode (a dupe sheet). A Cabrillo file is also acceptable. Log files or summary sheets alone sent to ARRL do *not* constitute a valid Field Day entry. To confirm that your web entry has been received, visit the Field Day logs received page. If the entry indicates "Pending documents," upload the missing items for maximum scoring. Entries must be postmarked or submitted by Tuesday, July 23, 2019. Late entries cannot be accepted.

Field Day is typically a club activity, and by the time the fourth weekend in June had arrived, nearly 1,600 groups had registered their locations.

The South Jersey Radio Association's (SJRA) K2AA operated in the 7A category. "This was a great effort by the SJRA members and guest operators, especially at the low point in the sunspot cycle and what seemed like not very good conditions," Bob Beyer, KE2D, reported on 3830scores.com. "Our digital station was the new star this year, contributing 232 QSOs -- a considerable improvement over other years."
W3AO, the well-known call sign of the National Press Radio Club in Maryland, had an unofficial contact count of 10,000 in the 14 A category. "Propagation on 15 and especially 10 meters was somewhat sub par, same for 6 meters," said Frank Donovan, W3LPL. "FT8 has fundamentally changed the digital landscape; there was very limited RTTY and PSK31 activity. There was also very limited CW and SSB activity on 6 meters."

One operator who posted to the ARRL Field Day 2019 Facebook page was among those pointing out that propagation was difficult; while he was able to hear stations on the other side of the country and in the Caribbean, they could not hear him. He also reported high atmospheric noise. Nonetheless, others reported openings on 6, 10, and 15 meters, where good propagation has been sparse in recent months.
Wade Harris, KF5IF, was part of the crew at the USS *Batfish* WW2SUB Field Day in Oklahoma. "Everyone seemed to have a good time, but it was a less-than-wonderful Field Day event, mainly due to storms that caused noisy band conditions and severe lightning and high winds that caused everyone to disconnect and drop the antennas to stay safe," he said on the ARRL Field Day 2019 Facebook page. Less than a month ago, extreme flooding at the museum floated the World War II submarine downriver, after mooring lines broke.

Donald Purnhagen, K4ILG, in Florida said his 10-year-old daughter, Donalyn, caught the bug operating the GOTA station at the Platinum Coast Amateur Radio Society Field Day site (W4MLB). "After some quick instructions, she was answering CQs, exchanging information, and logging contacts," he reported on the ARRL Field Day soapbox page. Her dad said Donalyn was eager to return the next day and logged a total of some 40 contacts. "I am pretty sure that she will be ready to take her Technician exam by the time our hamfest rolls around in October," he added.

Michelle Gangi, AC2SQ, who was among the Community Amateur Radio Club (K2SRV) operators in New York, asked in jest if bonus points were available for having a wedding take place in the midst of a Field Day setup. "Apparently, the lighthouse we're set up at double booked," she posted on the ARRL Field Day 2019 Facebook page. "We respectfully shut down our stations for the ceremony."
Brenda Plummer, KD9GDX, narrated a video tour of the Fort Wayne Radio Club's Field Day operation in Indiana.

New Device Creates Electricity from Snowfall

UCLA reports that researchers and colleagues there have designed a new device that creates electricity from falling and fallen snow. The first-of-its-kind device is inexpensive, small, thin, and flexible like a sheet of plastic.

"The device can work in remote areas, because it provides its own power and does not need batteries," said senior author Richard Kaner. "It's a very clever device -- a weather station that can tell you how much snow is falling, the direction the snow is falling, and the direction and speed of the wind."

The researchers call it a snow-based triboelectric nanogenerator, which generates charge through static electricity and produces energy from the exchange of electrons.

Findings about the device are published in the journal *Nano Energy*.

"Static electricity occurs from the interaction of one material that captures electrons and another that gives up electrons," said Kaner. "You separate the charges and create electricity out of essentially nothing."

Snow is positively charged and gives up electrons. Silicone -- a synthetic rubber-like material composed of silicon and oxygen atoms, combined with carbon, hydrogen and other elements -- is negatively charged. When falling snow contacts the surface of silicone, that produces a charge that the device captures, creating electricity.

"While snow likes to give up electrons, the performance of the device depends on the efficiency of the other material at extracting these electrons," said co-author Maher El-Kady, a UCLA assistant researcher of chemistry and biochemistry. "After testing a large number of materials including aluminum foils and Teflon, we found that silicone produces more charge than any other material."

About 30 percent of the Earth's surface is covered by snow each winter, during which time solar panels often fail to operate, El-Kady noted. The accumulation of snow reduces the amount of sunlight that reaches the solar array, limiting the panels' power output. The new device could be integrated into solar panels to provide a continuous power supply when it snows, he said.

New Anchorage ARC VEC Chairman Takes Reigns

I am proud to announce that the Anchorage Amateur Radio Club has selected and approved a new Chairman for the Anchorage ARC VEC program. Brandin Hess, AL6I has been chosen to take over the program. His dedication to the amateur radio service, attention to detail, and **drive to find solutions that fit everyone's individual needs are key to ensuring success of our VEC program for many years to** come.

Effective today, June 11, 2019, I have the honor of passing leadership of this program to my successor. I am confident in his willingness to take this on and to be an excellent representative of our program going forward. I appreciate the incredible amount of patience he has exhibited during this transition and his drive to even motivate me on more than one occasion! Brandin and I will work together over the coming weeks to make updates to our website to reflect this change. I also fully expect that Brandin will have some fresh ideas to give our VEC web pages some needed updates!

It has been a pleasure serving as the Chairman of the Anchorage ARC VEC over the past few years. I will remain involved with the program, and look forward to working with our new Chairman going forward!

73,
Kent Petty, KL5T
Chairman, Anchorage ARC VEC (retired)
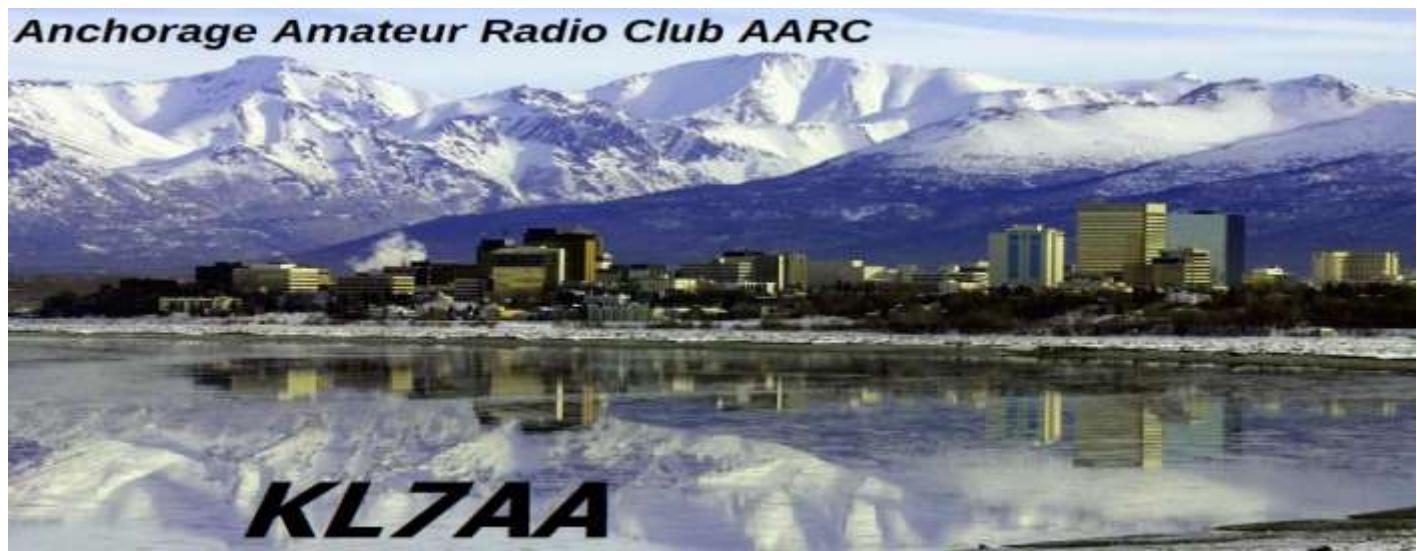
<u>Items For Sale</u>

2 Radios for sale

Yaesu 991a all modes / all bands $900
Yaesu 2900 VHF $80
Both radios come with mic and power cord.

Contact Mark Ettelt, K7UPP at
Mark.Ettelt@enstarnaturalgas.com

Have you signed up to support YOUR Radio Club?

Here are two ways you can help fund our Anchorage Amateur Radio Club. Both are really easy on your part. Please consider doing both options, if you haven't signed up, please do.

Fred Meyer will give us money!

All you have to do is shop there and sign up AARC as your non-profit beneficiary. Once you sign up, a portion of every purchase you make is donated to AARC. There is no increase to you for your purchase by declaring AARC as your beneficiary. Currently there are three individuals signed up for this worthy cause. Let's see if we can make it 100%.

You still earn your Rewards points, Fuel Points, and Rebates just as you do today.

The AARC's Fred Meyer non-profit number is UB064.

If you don't have a Fred Meyer Reward Card, they are available at their service desk.

Tell your family, friends and neighbors about this opportunity too.

(Fred Meyer can be done via Internet)

Amazon Smile will give us money!

If you do shopping on-line at Amazon, you can designate AARC as your charitable organization. Amazon will donate 0.5% of your purchase to AARC. Log-on to:

https://smile.amazon.com/ch/23-7225693

For more information.

AARC is Accepting Credit Cards!

AARC can accept your credit card for payment of dues and donations. See Kent Petty KL5T at the next club meeting, club working Wednesdays or Board meetings.

Now may be the time to renew your membership; don't forget!

Thanks Kent KL5T, for setting this up!!

ANCHORAGE AMATEUR RADIO CLUB
BOARD MEETING
May 21, 2019
Radio Science Operation Center (RSOC)
6721 Raspberry Road
Anchorage, AK
APPROVED

The meeting was called to order at 7:00 PM by President Lara Baker AL2R

A quorum was established

BOARD MEMBERS PRESENT:
Lara Baker AL2R, Kent Petty KL5T, Dave Webb N9AIG, Keith Clark KL7MM, Matt Ostrander KL4QH, Lil Marvin KL7YF, TJ Sheffield KL7TS, Richard Tweet KL2AZ, John Lime III KL4OF

BOARD MEMBERS PRESENT VIA TELECONFERENCE:
Alice Baker KL2GD, Rich Gillin AL4S

GUESTS/NON-VOTING MEMBERS PRESENT VIA TELECONFERENCE:
Allen Abbott KB1QCE

NON-VOTING MEMBERS/GUESTS PRESENT

EXCUSED BOARD MEMBERS
Mathew Notte WL4DX, Ron Klein AL7JR

UNEXCUSED BOARD MEMBERS
None

REQUEST FOR AGENDA ITEMS/CHANGE IN ORDER
None

TIME CRITICAL ITEM(S)
None

REPORTS
SECRETARY REPORT
The April Board Meeting minutes and the May Membership meeting minutes were presented. With minor corrections noted and made, a motion was made by Keith Clark KL7MM and seconded by Matt Ostrander KL4QH to accept the minutes as corrected. The motion carried unanimously.

FINANCE COMMITTEE
Keith Clark, KL7MM indicated that there was a quick meeting. Still working on QuickBooks online. We will keep at it until we have some good reports to show. We have not heard from the individual that previously indicated he would do the club property survey. TJ indicated he would give the gentleman a call to determine a timeline for the survey. We have not heard from the airport with respect to any annual rent increase. We did have restitution check notifications totaling $500. We're still waiting to see those deposits in our account. As part of the development committee's work to assemble a presentation, the gaming permit will be mentioned in that presentation. Kent Petty KL5T has been working hard on QuickBooks. Online training was purchased for QuickBooks. Remember that QuickBooks is a package for businesses that are for profit. Our challenge is to get our world into QuickBooks. It is possible for board members to log into this training. Please contact TJ Sheffield KL7TS for that login script. Everyone needs to have patience as individuals continue to set up QuickBooks. We're basically starting from scratch and there is a lot to implementing this software.

GRANT REQUESTS
There were no grant requests this last period.

GAMING
Lara Baker AL2R indicated that there are no rules against pull-tabs being available in marijuana retail outlets. The facility we're currently looking at is next-door to a marijuana shop.

BYLAWS COMMITTEE
Lara Baker AL2R and Dave Webb, N9AIG need to get together and sign and stamp the latest copy of approved bylaws.

Currently, in our bylaws, there is nothing that mentions a free membership after passing your amateur radio license. Presently, for whatever reason, we have not been implementing this gratis membership very well.

TJ Sheffield KL7TS made a motion to eliminate the free membership for newly licensed amateur radio operators. Keith Clark KL7MM seconded the motion. The idea of rewarding people is a good one to subsidize memberships, but currently we don't have the income in order to support a free membership. The free membership program stops as of the date of this board meeting. The motion carried unanimously.

TRUSTEE REPORT
Keith Clark, KL7MM reported that no one has used the log since we've been at the RSOC. People need to come in and sign the log prior to operating our radios for when and how long. We need to be requiring that members use this log to record their contacts. Unless it's a club sponsored event, operators should be using their own callsign. There has been some confusion over incoming QSLs asking for verification and no entry in our log. Dave Webb N9AIG indicated that the logbook of the world has been set up for KL7G. Winlink will be set up to also use KL7G.

PROJECTS COMMITTEE
T.J. Sheffield, KL7TS indicated the most recent project was rolling the MTV out to the Gold Nugget Triathlon. Considerable experience was gained using the MTV during this event. The APC 2200 was modified by Dave Webb N9AIG to use an external battery pack to extend the UPS operation during the loss of power. Kevin Opalka KL2NV is working on making our RDF (Radio Direction Finder) array. Matt Ostrander KL4QH is working on mesh cameras.

When working events, we need to be sure that we have enough volunteers so that individuals are only working partial days.

DEVELOPMENT COMMITTEE
Kent Petty KL5T indicated that we need to be sure we leverage the RSOC. An active role, on the part of the organizers, needs to take place to use the RSOC. The RSOC needs to be staffed for these various events. It was strongly expressed that the RSOC be used for all communications events and make it known to event organizers and others that this facility is being used. The RSOC can be leveraged to increase revenue to the AARC. Amateur radio operators assisting in these events are encouraged to get crowd management training. Some of the events we cover need additional individuals with this training. Events over 5000 people require this crowd control training. The crowd control training can be taken online and takes about two hours. The fee to take the training is $20. Crowdmanagers.com is the site to take the training. This will be put out to the ARES members too.

We have very strong support from the Alaska Run for Women and the Women's Triathlon groups. The Women's Triathlon would like to see additional video cameras for next year.

Kudos to everyone that made the mesh camera work.

We have a first cut on the syllabus for the radio camp. We can always use more instructors, but as of right now we can make do with the instructors we have. We need to see what kind of permissions we require from the airport to have food trucks at the RSOC. Richard Tweet KL2AZ indicated he would ask airport management if this is permissible. Keith Clark KL7MM indicated that the first 10 corporate letters went out this past week and we'll see the results of that mailing.

BUILDING COMMITTEE
Keith Clark KL7MM reported that there has not been a formal building committee meeting. Last year Kent Petty KL5T was central in getting the clubhouse yard cut. This year Kent will not be available. We need to make an appeal at the general meeting that we need a lawnmower to cut the yard.

MEMBERSHIP COMMITTEE
Rich Gillin AL4S indicated there were five renewals. We still have a database issue. The contributions and the membership modules still are not taking entries and we're trying to work through those database issues. Matt Ostrander KL4QH is trying to validate KL7AA with Google for YouTube for a nonprofit. Rich Gillin AL4S is inviting others to review this. It will be a branded YouTube channel. The benefits are unknown at this point. We will get some things for free and other things we may have to pay.

EDUCATION COMMITTEE
Kent Petty KL5T reported that the education committee report is rolled underneath the development committee above. The camp is the primary activity that is being developed.

EQUIPMENT REPORT
Kent Petty KL5T indicated that we continue to get donations and we are tracking those donations. Some significant donations of equipment have been received. We are sending out thank you notes via CiviCRM to those that are donating equipment.

ARES
Kent Petty KL5T reported Ron Klein, AL7JR is on vacation so were not doing a lot with turning over the reins. We continue to work on our relationship with Providence Hospital.

VE PROGRAM
Kent Petty KL5T reported that we are progressing to transition the VEC lead. Brandon Hess AL6I is going to take on the role.
We have been approved by a body of the ITU (International Telecommunications Union) to hold and certify Morse code examinations. Where this is important for us is when some amateur radio operators travel overseas, the country they are visiting may require Morse code competency. Brandon Hess AL6I and Kent Petty KL5T have developed a test and we gave this same test to a class in Maine.

OLD BUSINESS
TECHNICIAN CLASS
Kent Petty, KL5T is working on a class schedule for the fall.

REMOTE VILLAGE HF CAPABILITY
Kent Petty, KL5T continues to work on this item.

PREVENTING BURNOUT
We're still looking for ideas.

NEW BUSINESS
JUNE PROGRAM
This will be determined in the next couple of weeks if we find a champion for Field Day. Another possibility is a presentation on encryption.

VOLUNTEER MONITOR
There is a new observer program. It's called volunteer monitor. The application period is open.

ADJOURNMENT

The meeting adjourned at 8:01 PM.

Respectfully submitted as recorded on 05/21/2019 by Dave Webb N9AIG, AARC Secretary.

ANCHORAGE AMATEUR RADIO CLUB
MEMBERSHIP MEETING
June 6, 2019
Radio Science Operation Center (RSOC)
6721 Raspberry Road
Anchorage, AK
APPROVED

Call to Order
The meeting was called to order at 6:59 PM by President Lara Baker AL2R. There were 27 attendees.

Introductions were made for both guests and members.

Business
Lara Baker AL2R indicated that he will be giving a presentation on encryption. The title is "A Tutorial Encryption 101."

Lara Baker AL2R also indicated that there is not a tech talk tonight but instead will be a tour of our facility.

You've all been using encryption your entire life, but you may not be aware of it. A lot of encryption is not super complicated. When you file your federal taxes, you use a key that's a combination of your Social Security number, filing status and the amount of your refund. The objective is to make your communication a robust encryption so that the hacker goes after the other guy.

Three bad things you can do to data: disclose, distort, and delay or deny. Examples were given for peace time classified, banking, air traffic control, and evidence.

There are three conventions to encrypt. The first is ciphertext, plaintext, and a key.

What is encryption? Different ways to protect the contents of a message.

Unbreakable encryption: one-time pad

Generally: cipher is the algorithm, ciphertext is the encrypted message. In modern times, the goal is to make this ciphertext indistinguishable from random bits.

Capabilities of encryption: most commonly intended to protect the confidentiality of a message. It can be intended or used to protect the integrity of a message.

Purpose of encryption: it's a way to hide the contents of a message; it does not hide the existence of a message; it does not usually hide the source or destination of a message. Hiding the existence of a message can be done through secret inks, biker dots, or stenography.

Encryption: there are only two things you can do to the contents. The first is to substitute (Caesar cipher, Morse code, international phonetic alphabet) and the second is transpose (that is interchange or move).

Caesar cipher: the example is to shift the alphabet 3 places to the right or 23 places to the left and substitute letters.

Codes versus ciphers: ciphers generally involve individual linguistic units and codes generally involve larger semantic groups. Amateur radio operators use the "Q" codes. There is a published table to decipher those codes.

Breaking ciphers: all ciphers can be broken by brute force attacks. The goal of cryptanalytics is to find a way to break a cipher and less time than with brute force. The goal of cryptography is to develop a system where there is no attack faster than brute force.

Key length: Caesar cipher 4.64 bit key, enigma 140 bit key, data encryption standard 56-bit key, advanced encryption standard 128, 192, or 256-bit keys.

Codes: code (SPQRA) may mean attack at dawn, commercial telegraphic codes, or standard telegraphic code. Realize that early on there were no computers and all of this was done manually.

Ciphers: generally, convert one linguistic unit to another, usually of the same size; may convert a group of linguistic units into another group of the same size.

Secret key ciphers: these were really the only systems in existence until the 1970's. These are generally linearly fast for all message lengths. These are easy to implement in hardware. The main problem with secret key ciphers is secure key distribution.

Secret key encryption: this is like a deadbolt lock; generally, the same key is used on the interior and the exterior. A Caesar cipher is similar.

Enigma: a few of these enigma machines exist today but were developed during the war for secure transmissions and they used a daily key.

Public key cipher: Ford Motor Company uses this to lock and unlock doors on their vehicles.

Generalities: most cipher systems are symmetrical in that the same keys can be used to both encrypt and decrypt. Secret key systems are like the physical deadbolt lock. Using a public key system one can both encrypt with the public key and decrypt with a private key; encrypt with the private key and decrypt with the public key.

Public key ciphers: Diffie/Hellman developed for secure key exchange. RSA keys are a function of the product of two very large (about 200 digits) prime numbers. Secure key distribution is inherent. It does require some computing power. It is very fast for short plaintext. It is exponentially slow for long messages.

Hashes and checksums: they are used to detect changes in blocks of bits; such as a message. There is no real equivalent for physical messages. The Russian Mars probe used primitive electronics. The probe was sent without a checksum function. One of the commands said go to sleep, do not wake up and it was an error. As a result, the probe was lost.

Parity: makes the sum of all bits even or odd. It's used on very reliable systems. Commonly used on very reliable communication systems. A parity air generally results in an abnormal action. It is not designed to be secure against a deliberate attack.

Checksums: it's used to verify the integrity of transmitted or stored blocks of bits. It is most commonly used on fast generally reliable communication or storage channels. A bad checksum implies retransmission or re-retrieval of the data block is needed. It is not secure against a deliberate attack. The name comes from early systems where the checksum was simply the sum of all bits. Modern systems use shifting, inversion, etc. along with adding up the resulting bits. Most early checksums often miss multiple bit errors.

Error correcting codes: use to correct errors in storage or transmission, as well as detect those errors. Single error correction, double error detection. It may be very long. For example, space probe data may be more than 50% error correcting code.

Hashes: used to securely verify the integrity of a message. Cryptographically mixes up or hashes all the bits in the message together in a repeatable card to spoof process. It is resistant to deliberate attack. The resulting hash is usually long. This is also called message digests. Message digest five is 128-bit hash. Secure hash algorithm is 160-bit hash. Changes explode; that is, a single bit asked change in the message should on the average result in half the bits of the hash changing.

Digital signature: starts with cryptographically secure hash of the message. The hash can be published. Hash can be encrypted with an originator's private key.

Caution: you are not allowed to encrypt amateur radio traffic.

Warning about usage: cryptographic terminology can be confusing and is often misused. Private key versus secret key; the fact that you should keep your private key secret hardly helps. Digital signature versus legally accepted actions.

Historical reference: "The Codebreakers: The Comprehensive History of Secret Communication from Ancient Times to the Internet" by David Kahn.

Technical reference: "Applied Cryptography, Second Edition: Protocols, Algorithms, and Source Code in C, 20th Anniversary Edition by Bruce Schneier

TJ Sheffield KL7TS indicated we need all club members help with a "Mow-Fest" on Sunday at 1 PM. Please bring your lawnmowers and help with the groundskeeping of the club. This is a 2-acre facility. Bring a mower or string trimmer or just come on down. We will have equipment.

A reminder is that this working Saturday at 8 AM the RSOC will be used for the Alaska Run for Women. Other members will be providing communications throughout the racecourse. There are 5,000 participants. The RSOC will be used as a backup net control. All members are encouraged to come to the clubhouse to see how it is used.

John Lime III KL4OF (club treasurer) requested donations for the club. All members are encouraged to help finance the RSOC with its expenses. We would like to keep the lights on and the heat working.

Door prizes were awarded.

Reminder: There is not a General Membership meeting in July.

The meeting adjourned at 8:21 PM.

Respectfully submitted as recorded by Dave Webb, N9AIG on June 6, 2019, AARC Secretary

Monthly Events

1st Thursday each month: AARC general meeting - **7:00 PM** in the Radio Science and Operations Center (RSOC) Building at 6721 Raspberry Road, Anchorage. Talk in will be on 147.34/94 repeater or 146.49 Anchorage simplex talk frequency.

1st Thursday each month: Moosehorn Amateur Radio Club General meeting - **7:00 PM** Location is at Borough Emergency Response Center on Wilson Way in Soldotna (behind Soldotna FD. Call for directions on 146.88 repeater (no tone). Moosehorn ARC also holds a weekly luncheon every Thursday, locations and times change — contact George Van Lone, KL7AN: donnav@acsalaska.net

2nd Saturday each month: PARKA (Polar Amateur Radio Klub of Alaska) Meeting at 11:00 AM. Polar Amateur Radio Klub of Alaska. All amateurs welcome. Some business is discussed. Originally established as an all woman organization, membership now includes spouses or significant others. Talk in on 147.30+.

2nd Saturday each month (except for holidays): VE License Exams at 2:00 PM. at the RSOC, 6721 Raspberry Road. Be sure to bring a government issued photo ID, a copy of your current license (if any) and any Certificates of Successful Completion of Examination (CSCE). Contact: Lara Baker, AL2R (president@kl7aa.org)

3rd Tuesday each month: AARC Board Meeting at 7:00 PM at the Radio Science and Operations (RSOC) building. All members are invited and encouraged to attend.

1st Tuesday of each month: EARS general meeting at 6:00 PM. EARS meetings are held at the EARS shack location. Contact info - Pete Pritchard KL7IS for more information (email president@kl7air.us) EARS: 552-2664 (recording); Talk in on 146.67-. Email: club@KL7air.us or Ron Keech KL7YK (Station Manager) kl7yk@arrl.net

4th Saturday of each month: Valley VE Testing at 7:00 PM. Sessions will be held at Fire Station 61, at 7 pm on the fourth Saturday of each month unless it is a major holiday weekend. Contact Ken Hudson, KL2HF, Kenputer@hotmail.com or 907-354-0206.

The last Friday each month: MARA meeting at 7:00 PM, Wasilla Fire Station 61. Talk-in help for the meeting can be acquired on the 147.33 repeater. Further details can be found by contacting Don Bush, KL7JFT, dbush@gci.net.

Every Monday at 11:00 AM: Meeting of interested Amateur Radio Operators — and lunch at Denny's on DeBarr — across from Costco. Many code and HF operators attend this function. Come talk radio. For information, contact Kathy O'Keefe, KL7KO, kokalaska@gmail.com

Every Saturday at 7:00 AM: Meeting of a group of Amateur Radio Operators at Village Inn on Spenard Road for breakfast. Topics include Radio, photography, and upcoming events For information, contact Kathy O'Keefe, KL7KO, kokalaska@gmail.com.

Active Nets in Alaska

VHF NETS

The local VHF Nets have a Packet side as well. Look for 2 meter Packet at 145.01 (Eagle) and 147.96 (Valley). The Eagle and Valley nodes provide a talk" or chat function. Also, if you are unable to connect directly to one of the nodes, try digipeating through EARS on either frequency. Do this by typing *c eagle v ears* or *c valley v ears* on the appropriate frequency. Check www.KL7AIR.us for more information on the digipeaters.

ARES Net: 147.33 w/ 103.5Hz tone (Backup 147.30 w/ 141.3Hz tone) —Thursdays at 8:00PM

No Name Net: 146.43 simplex—Sundays 8:00PM

South Central Simplex Net: Meets on 146.52 FM then shifts to 144.2 USB, 446.0 FM, 432.2 USB, 223.5 FM, 927.5FM, 1294.5 FM, 52.525 FM, 50.125 USB, 29.6 FDM, 28.4 USB, 145.01 Packet (Eagle Node), 147.96 Packet (Valley Node) - Tuesdays 8:00PM

Alaska VHF Up Net: 144.200 USB—Saturdays 9:00 AM

Alaska Morning Net: The Alaska Morning Net is held Monday through Saturday from 9:00 AM—11:00 AM on the IRLP Reflector 9109. This net can be reached via several hosting nodes in the area. Please visit www.status.irlp.net/index.php?PSTART=2&mode=3 to find the closest node. Also the net can be reached via EchoLink on 9191 (WL7LP-R) and Allstar nodes 27133 and 29332. The Alaska Statewide ARES net is held on Thursday evenings at 8:30pm (following the Anchorage ARES net) at the same locations and also the 8:30pm Sunday evening Alaska Statewide Radio Link.

HF Nets

Alaska Snipers Net: 3.920 MHz 6:00pm daily

Alaska Bush Net: 7.093 MHz 8:00pm daily

Alaska Motley Net: 3.933 MHz 9:00pm daily

ACWN (Alaska CW Net): 3540 kHz, 7042 kHz, 14050 kHz Non-directed, CW calling and traffic watch for relaying NTS of other written traffic. AL7N monitors continuously receivers always on WL2K. (RMS connection available— AL7N@winlink.org)

Alaska Pacific Emergency Preparedness Net: 14.292 MHz 8:30am M-F

ERC HF Net: 3.880 MHz 8:30pm Sundays

DATA YOU CAN USE				
Frequency	**Tone**	**Callsign**	**Features**	**Area**
147.18-	88.5	ADES		JBER
146.88-	no tone	AL7LE	Phone patch	Kenai/Soldotna
146.82-	103.5	WL7CWE	IRLP	Anchorage
146.76-	123.0	KL3K	IRLP	Seward
146.94-	103.5	KL7AA		Anchorage, Wasilla, Northern Kenai
224.94-	no tone	KL7AA		Anchorage, Wasilla, Northern Kenai
444.70+	103.5	KL7AA		Anchorage, Wasilla, Northern Kenai
146.67-	103.5	KL7AIR	MARS station	Anchorage & Highway N
147.30+	141.3	KL7ION		Anchorage, Wasilla, Northern Kenai
146.85-	103.5	KL7JFU	Cross Banded to 444.600	Mat Valley
444.6+	103.5	KL7JFU	Cross Banded to 146.85	Mat Valley
146.91-	no tone	KL7JL		Homer
147.15+	107.2	NL7S		Wasilla
147.84-	103.5	WL7CWE		Wasilla repeater
147.33+	103.5	WL7CWF	Cross linked to 443.900	Very Wide Area
443.900+	103.5	WL7CWF	Cross linked to 147.33	Very Wide Area

South Central Area Simplex Frequencies	
146.52	National Calling and Emergency Frequency
147.57	DX Spotting Frequency
146.49	Anchorage Area Simplex Chat
146.43	Mat-Su Valley Simplex Chat
147.42	Kenai Peninsula Simplex Chat

.

WinLink Information		
144.91	WL7CVG-10	Anchorage Area RMS, 1200 baud
145.19	KL7JFT-10	Palmer/Mat-Su RMS
144.91	WL7CVG-4	South Central Digipeater, 1200 baud
144.97	KL7AA-10	Anchorage Area RMS, 1200 baud
223.66	WL7CVG-10	Anchorage Area RMS, 9600 baud
441.175	WL7CVG-10	Anchorage Area RMS, 9600 baud
145.07	KL7GRM-10	Northern Kenai RMS, 1200 baud

July 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Development Committee 7pm	2	3 Working Wednesday 6pm	4 NO MEMBERSHIP MEETING	5	6 Working Saturday 10am
7	8 Finance Committee 7pm	9	10 Working Wednesday 6pm	11	12	13 Working Saturday 10am 2pm License Examination
14	15 Development Committee 7pm	16 AARC Board Meeting 7pm	17 Working Wednesday 6pm	18	19	20 Working Saturday 10am
21	22 Development Committee 7pm	23	24 Working Wednesday 6pm	25	26	27 0730 Friends of Pets Dog Jog Working Saturday 10am
28	29 Development Committee 7pm	30	31 Working Wednesday 6pm			

If you have anything you'd like included in the next newsletter such as items for sale, articles, questions, etc. email *editor@kl7aa.org*

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