May 2004

Anchorage Amateur Radio Club

Next Meeting May 7th

Program: Alaska Land Mobile Radios and Their Use

April Program – ALMR Radios

Our speaker will be Jack Phelps who is the Director of Emergency Communications for the State of Alaska, Department of Military and Veterans Affairs. He is also Project Manager for the Alaska Land Mobile Radio project.

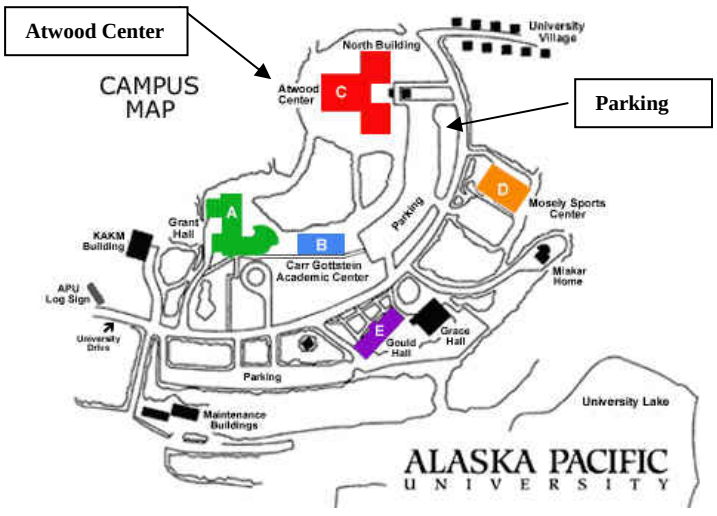
++++++++++++++++

May Meeting Location Changed to Atwood Hall, APU Campus

The May 7th meeting has been moved to Atwood Hall, Room 106, on the Alaska Pacific University Campus. It is the big building at the other end of our normal parking lot.

Additional details: Upon entering the APU Campus the Atwood Center will be the third building on your left. It has white pillars, stairs, and a fountain in front, although it may not be up and running yet. Parking is to your left when facing the building and is the far end of the same lot we use now. It will be on the left before you reach the building when driving up.

Coming thru the main doors to Atwood you'll find the "Art Room" directly to your left with glass doors, room 106. The chairs will be arranged in presentation format with a screen up front and a table for our projector and equipment. We are normally in Bldg B but this time in Bldg C.

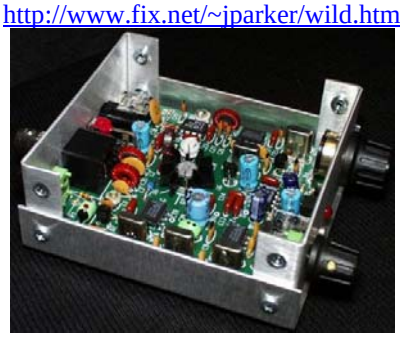


An Outdoorsman's View of the Elecraft K2

By Bob Armstrong, N7XJ
With permission of The ARS Sojourner

I've been addicted to hiking, backpacking and ham radio since I was a young boy in the early 60's. I have owned just about every piece of ham gear that offered hope of being useful for backpacking. Truthfully, most rigs have just been novelties. But good backpacking gear is now available.

I especially like the Wilderness Radio SST.
< http://www.fix.net/~jparker/wild.html>



My 20 and 40 meter SSTs have been on the top of mountains, on deserts, and at the bottom of the Grand Canyon many times. These tiny radios produce amazing results.

After experiencing the SST and the NorCal 40A, I was ecstatic when Wayne Burdick, N6KR, the designer of these rigs and the Sierra, announced he and Eric Swartz, WA6HHQ, would produce a small, full featured ham transceiver kit for portable use. Clearly, the new K2 was being custom designed for me.

I signed up to be one of the 100 field testers of the K2 kit. It has been a great experience. My basic K2 kit with the internal battery option went together without trouble, and has been used at home and in the field.

The SSB, ATU and other options have not yet arrived, but are coming soon. A full product description can be found at Elecraft's web site: http://www.elecraft.com .

My purpose here is to say a few words about the K2 from the viewpoint of a camper and backpacker.

THE TRANSCEIVER

The K2 occupies an absolutely unique niche in amateur radio. The kit is designed with the experimenter in mind, but construction is easy and requires no special tools. Its operation is like a "big rig." It has a hot receiver, six digit VFO readout, memory channels, user programmable crystal filters, a wonderful CW memory keyer, CW spotting, RIT, XIT, etc.

But its portability is the great news: it exceeds my wildest dreams. The K2 operates much more like my TS570D than my HW9, but exceeds both rigs in features desirable to an outdoorsman.

SIZE

The K2 is smaller than a sheet of copier paper; roughly 8 by 10 by 3.5 inches. It fits nicely into my little day pack. Its options (including a battery and an ATU with SWR meter) mount inside the rig. The only things needed external to the radio are paddles, an antenna, and perhaps a microphone and headphones.

I have not yet found a rugged dust and waterproof container for the K2 that satisfies me (I keep my other backpacking rigs in Tupperware containers).

WEIGHT

The basic K2 weighs 3.3 lbs, which is lighter than my HW9. The optional internal battery is very husky, weighing about 2.5 pounds. I anticipate the SSB, ATU, and other options will weigh only a few ounces each. Adding the weight of my earbuds, keyer paddles, solar panel, antennas, log book and other gear, I expect to carry less than 10 pounds to operate on seven or eight bands.

DURABILITY

The K2 feels sturdy. Its case consists of a front panel and five additional aluminum pieces that fit together solidly. It has a pleasant gray ripple finish that is fairly resistant to scratch. A piece of plexiglass covers the digital readout. The front panel has small plastic knobs and push buttons, making me nervous about dust or bumping my K2 when I took it to the desert.

I want to find a very sturdy airtight protective case before I take it on a wet hike. On the other hand, I accidentally left my K2 in the freezer for about six hours (don't ask why). The rig was covered with ice when I put it in operation, but it worked fine and suffered no harm as the ice thawed.

POWER CONSUMPTION

This part of the K2 is astounding. The K2 is uniquely designed to reduce power consumption, and many of its features (such as S meter and backlighting for the readout) can be switched off to further conserve power.

With all features on but no signal present, my K2 draws 180 ma on receive (compared to my TS570, which draws 2 amps!). The K2 draws only 100 ma with the features off. A 13.8 volt supply is intended, but the receiver works down to 8.5 volts and my transmitter sounded fine with a nearly dead battery (10 volts).

I usually transmit at 5 watts, where the rig typically draws 1.4 amps when using a well-matched antenna. It requires about 1.8 amps to transmit at 10 watts.

A very easy modification can make the transmitter more efficient at low power, reducing power consumption by about 25% at 5 watts but limiting the output power (especially on SSB). Several of the field testers have made this modification and are happy with it; I am planning to do so.

The front panel display shows battery voltage and current (very helpful!). I expect 6 hours or more of very heavy contest operation from the 2.9 Amp Hour gelled electrolyte internal battery. The rig is ideally suited for solar power applications, and its internal battery can be charged during operation.

OBSERVATIONS

My portable operating generally fits into one of three categories: camping, field contesting, and backpacking. The K2 is absolutely ideal for the first two activities. It will definitely go with me on family, Scout and youth camps where I may operate from a tent for days at a time.

The K2 will offer a distinct competitive edge for contests like QRPTTF, FYBO, Flight of the Bumblebees, Field Day and other activities where I expect it to do as well as my "big" rig, even with crowded bands and difficult conditions.

The K2 is perfect for motel operating, and would be a great mobile rig. It would also be ideal for a DXpedition to an isolated spot.

I plan to hike with my K2, but feel it is too large and heavy for extended backpacking trips or for day hikes when the primary purpose is exploration rather than ham operating.

My tiny single band rigs are waiting in my pack for those kind of adventures.

Overall, I am delighted with my K2. Elecraft's Swartz and Burdick have kept all their promises, and have produced my "dream rig" at a fair price. The K2 adds delightful new prospects to my ham operating. I'm sure it will get extensive use this summer and over the years.
* * * * * * * * * *

Bob Armstrong, N7XJ, is an avid outdoorsman, QRP operator and frequent contributor to The ARS Sojourner living in Manti, UT. (Reprinted with permission from the ARS Sojourner, The Monthly Journal and Information Center of The Adventure Radio Society)

Communicating Without The Power Grid

Introduction

Although this document is intended primarily for Amateur Radio (Ham) operators, it is applicable to anyone who may be operating radio equipment under emergency conditions. If the people involved in providing these services to their community are going to be effective, they must first be confident that their families are safe and secure.

Power Failure Considerations

Often the need for emergency communications occurs concurrently with a power failure. During emergencies, radio equipment is used non-stop for hours or days at a time. This will place a severe strain on the backup power resources that we have at our disposal. The general consensus is that we can run the equipment from our vehicle battery. This is true in the short term but it is not practical for more than a few hours. Every Amateur Radio operator should review the power requirements of their station.

Simple?

It is recommended that each of us perform our own power fail exercise. Running your station on a 12 volt battery system sounds so simple that most of us feel that an exercise such as this is a waste of time. Believe me it is not! I can guarantee that it will take longer than you expected to get back on the air and that you will be find flaws in your plans when you actually perform the exercise! As radio Amateurs, when we think of such things, we think "radio" but that is not enough.

Working Conditions

If you can't see to operate the equipment and to write messages, there is little point in even being on the air. In fact, you might be more of a hindrance than good if you are trying to handle messages in the dark when someone else who is better equipped is sitting idle waiting for a chance to help.

Heating

What about your heating system? Consider what would happen in the winter when your heating system (gas, oil or electric) failed due to the power failure. Would you have to abandon your station or do you have an adequate back up heating system? What provisions have you made to heat your home if there is no power to run your furnace?

Water Supply

Do you have a supply of drinking water in storage?
You will need about a gallon per person per day just for drinking (and more if you talk a lot!) All that coffee, tea and other beverages that you drink adds up to a minimum of a gallon per day. This volume does not include water used in the bathroom and for washing dishes. Think about these things and fix the discrepancies as soon as possible. Don't procrastinate. Tomorrow could be too late!

Power Failure Exercise

Let's try it tonight. After dark, turn off the main circuit breakers in your house. Don't just unplug your radio power supply. Kill all the power so that all the lights and even your soldering irons are dead! Activate your emergency lighting then put your station into operation on both HF and VHF.
If you weren't already set up for this type of operation, you'll be surprised at how long it can take to get back on the air! You may find it advantageous to do this exercise simultaneously with other amateurs in your area and discuss it on the radio as part of the exercise. The sharing of ideas during the test may prove interesting.

***Caution**: Mixing candles with a desk full of paper could dramatically add to the excitement!*

After you have been operating in this mode for at least an hour, continue the exercise by connecting any emergency battery charging equipment that you may have whether it is a power plant or a cable run to a vehicle. Is your reserve fuel supply adequate for your backup heating system, lights, and power plant? Is it stored in a locked building well away from your home and garage and out of the sun?

++++++++++++++++++

Proposed Changes to the Anchorage Amateur Radio Club

Articles of Incorporation, Bylaws and Rules of Procedure.

The AARC Board of Directors has determined that there are organizational advantages for us to convert from a 501c7 non-profit organization to a 501c3. Among the advantages to the change is that donations to our club would become tax deductible. Corporations and individuals could freely donate to AARC and accrue a tax advantage. The Board developed the required, proposed updates to the Club Articles, Bylaws and Rules of Procedure to allow for this change. (Details and explanation are provided below). Our Attorney has concurred in the wording and content after many revisions to accommodate State Law and the IRS. The board has invested extra board meetings discussing and working through each change and has finally approved these proposal documents for presentation to the membership.

The proposed and current Articles of Incorporation, Bylaws and Rules of Procedure have been mailed to the paid up membership as of last week.

We sincerely ask for your support in approving these changes.

The timeline we have adopted is as follows.

April 27, 2004 – All proposed changes are mailed first class to members of AARC along with a copy of all of the original documents.

May 8, 2004 – Changes are proposed at the AARC General Meeting.

June 5, 2004 – Changes are presented for second time at General Meeting and voted upon.

These documents form the legal basis for our organization. I encourage you to take time to read them and then to attend the June 5 meeting to help us approve them.

Jim Larsen, AL7FS, President/Chair - Bylaws Committee
Jimmy Tvrdy, KL7CDG, Bylaws Committee
Jim Wiley, KL7CC, Bylaws Committee
And the Anchorage Amateur Radio Club Board of Directors and Officers.

A collection of propagation "stuff" and links.

Les Buchholz, **KL7J**

I assembled an informal compilation of excerpts from my books and web sites. Since it was informal, I did not quote or footnote it. Too lazy to make it formal, but much of the information is not mine except for the example greyline maps, finding links, and some comments. If you want more detailed science, a lot of information is on web sites such as http://www.hfradio.org/propagation.html. I did this basic clipping of what I thought was "good stuff" initially about a year ago as a 1 of 2 part collection of HF propagation notes for myself and something simple for new hams asking questions, particularly in Alaska with the polar influences ever present. To get a view from the experts of how all the parts mentioned below will generally act now or next month, visit the web at: http://www.arrl.org/w1aw/prop/ or http://www.arrl.org/qst/propcharts/

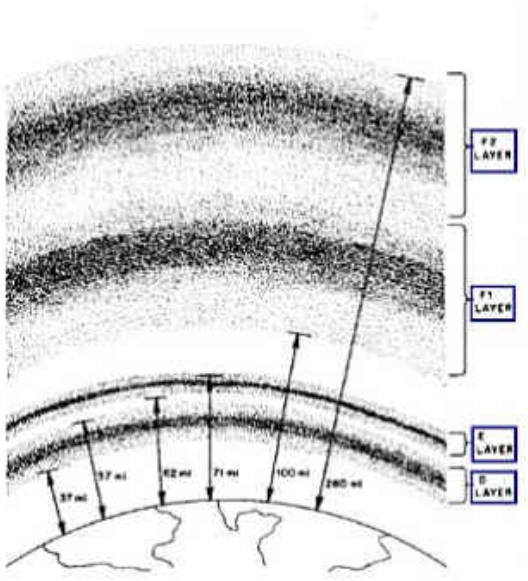


Fig 1

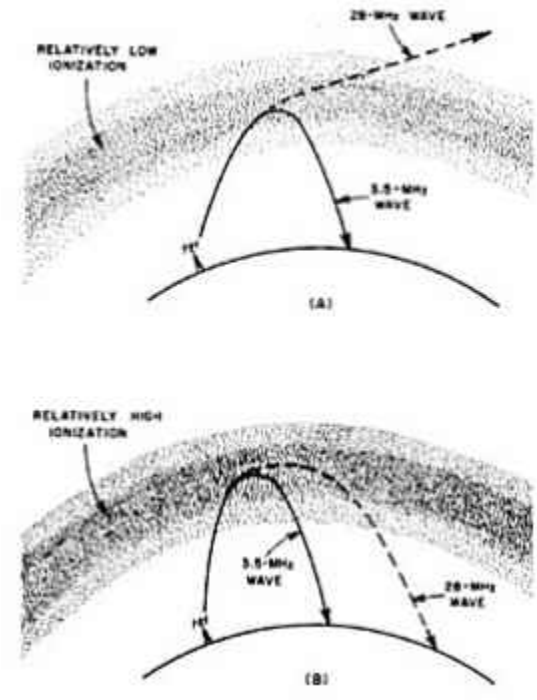


Fig. 2

For me, it is easiest to think of propagation in two parts: 1). The *basic layers* with their predictable seasonal changes in a varying 11-year solar cycle. 2). S*olar coronal holes* than can cause fast unpredictable changes on those layers.

The basic layers shown below that vary with the time and seasons (ARRL) (See Fig 1 and 2)

The RF absorption in the D layer ionization varies from high in sunlight to minimal in darkness. You have to use a high enough frequency to penetrate through it but reflect off the F2 layer. At times F1 and E layers have effect. The F levels of ionization vary with daylight, by season, solar storm activity and the 11-year solar cycle. The D-layer absorbs low bands, but slowly wanes in darkness. The angle of wave reflection also influences attenuation amounts and times on low bands.

Sounds predictable with the layers huh? Ah, here is some information on those non-typical times when you hear but can't get a signal back due to tilt or ducting.

On reflection at ground level, angles of incidence and reflection are equal and the path continues upward again. But there can be horizontal gradients as well, say across the terminator where there is more ionization on the sunlit side than the side in darkness. So if RF signals were sent initially parallel to the terminator, one would expect the RF to be bent away from the sunlit side, with its high horizontal gradients as well, say across the terminator level of ionization, and toward the darkness. That's skewing, pure and simple, with the RF refracted away from the region of greater ionization (NM7M).

The electron density at a given height may vary along the path direction, say become smaller. That would serve to "tilt" levels of the ionosphere upward and weaken the density

gradient. As a result, there would be less refraction or bending after the peak altitude than before, and that tilt serves to increase the length of a hop and change the RF angle on return to a lower value (NM7M?).

Coronal holes and Solar Wind. (These *can bring fast changing conditions*)

To get information about current and expected solar storms, you can watch the current solar wind at http://www.sec.noaa.gov/SWN/ and forecasts at http://www.sec.noaa.gov/ws/.

It is going on all the time as the solar wind sweeps by. It is just a matter of degree. The sun has corona holes that pass by our view as the sun turns every 27 days. The impacted propagation is when earth's magnetic field lines are dragged way back into the magneto-tail by increased solar wind pressure effecting the ionosphere electrons.

That would mean a deductions in MUF, affecting propagation and in Alaska we see that often at these higher latitudes around the aurora zones and poles. It's often tough going in Alaska.

The aurora is thought caused by the interaction of high-energy particles (usually electrons) with neutral atoms in the earth's upper atmosphere. These high-energy particles can 'excite' (by collisions) valence electrons that are bound to the neutral atom. The 'excited' electron can then 'de-excite' and return back to its initial, lower energy state, but in the process it releases a photon (Space Environment center).

The experts tell us the combined effect of many photons being released from many atoms results in the aurora display that you see.

The details of how high energy particles are generated during geomagnetic storms and the study of the aurora constitute an entire discipline of space science in its own right. The basic idea, however, is that the Earth's magnetic field (let us say the 'geomagnetic field') is responding to an outwardly propagating disturbance from the Sun. As the geomagnetic field adjusts to this disturbance, various components of the Earth's magnetic field change form. When the interplanetary Magnetic Field imbedded in the solar wind is predominantly negative it increases the chance for geomagnetic disturbances. If the Bz directed southward (-), the IMF can couple more effectively to the earth magnetic field leading to disturbances (NOAA). You can see the important concerns of current wind speed and Bz (magnetic polarity) at http://www.sec.noaa.gov/SWN/. A negative Bz is soon noticeable in the far north and is a time you might want to just read the fine print in some manuals you never bothered with before.

If you use this fast changing condition just on the rise and fall of the solar event, you can have great DX during the increasing ionization before the upset magnetic field impacts the bands, or catch it on the down side with the magnetic field back normal before ionization decreases substantially. This is usually called pre-enhancement.

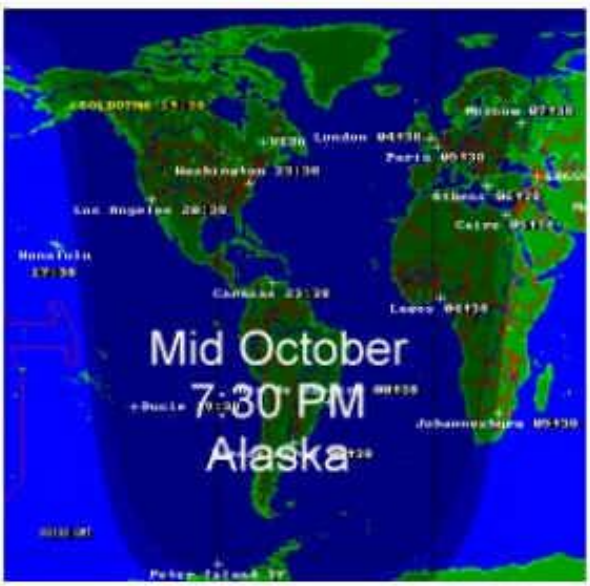
The 11-year sunspot cycle is the reversing of magnetic fields on the sun. At what state the magnetic field reversal is in can effect how the mechanisms of flare filaments affecting our propagation. You have to watch for the corona holes rotating into view and effects at http://www.sec.noaa.gov/ws/. The increasing A (past days averaged) and K (fairly current happenings) indexes are an indication of solar effects that impact the geomagnetic field.

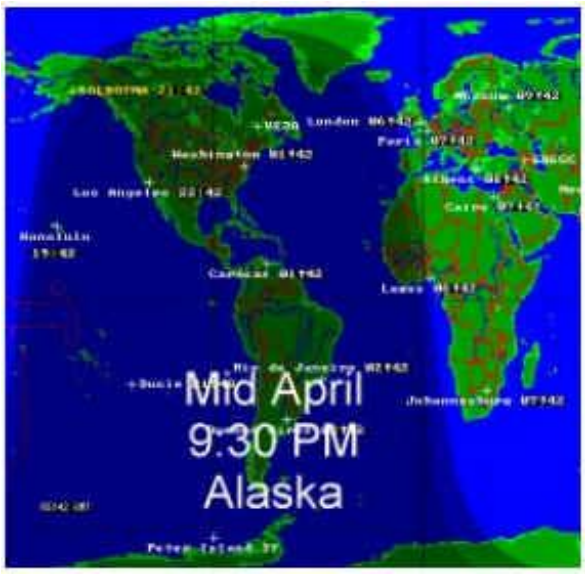
You can also get:
Polar Cap Absorption (PCA) due to collection of protons within the polar cap causing massive absorption right down to the lower ionosphere D layer (KN4LF). There are usually PCA alerts on propagation pages.

As you probably have noticed, the more active the geomagnetic field, the more likely the ionosphere will recombine, lowering the MUF (NW7US). However there often is a fast rise of MUF, an enhancement of the MUF with DX potential opportunities as storms approach and again as they fade.

Other handy propagation items:

Greyline, the supercharged highway (KL7J)**:** The area occurring along the sunset and sunrise is known as the gray line and it has special significance to radio communications. The signals, which travel along this gray line region often, experience significant improvements in received signal strengths as compared to the direct shortest distance communications. This is because the radio wave absorbing D-layer disappears faster than the higher altitude radio wave propagating F2-layer around the time of sunset (and vise versa for sunrise). Because the F2-layer of the ionosphere remains strongly ionized along this gray line, HF signals often have less attenuation when they travel along the gray line as compared to the more direct shorter route (AE4TM). You can view the greyline at http://dx.qsl.net/propagation/greyline.html. This greyline changes a lot with each passing month on what it overlaps.





(These greyline figures may not print well; Check http://www.KL7AA.org for the color copy)
The 20 meter and 30/40 meter bands seem to display greyline long path the most often. If you have a beam, you can beam long path over the South Pole to Africa. I seem to hear very strong signals long path, especially in June on 20 meters to Africa and again in September and October including other bands. At times you will hear a delayed echo from signals arriving both long path and short path.

Related to greyline, on lower bands you can work in darkness into the east coast sunrise of increasing F layer ionization before their D layer builds up too much. The same goes for Europe, it is mostly a matter choosing the right time and season. Software for this is at http://home.att.net/~geoclock/. The software has the ability to vary months or time so you can explore greyline paths in the coming months.

They are coming… the "Mid Summer Doldrums"

Maximum Usable Frequency isn't caused by heating but by a chemical difference in the F-layer during summer. It is really a chemical effect due to the differential lifting of atomic oxygen with seasons, as compared to that of molecular nitrogen and oxygen. The (n2+O2)/O ratio is greater in summer than winter, increasing by 1.5x to 3.3x from 150 km to 400 km. The higher ratio means more recombination of electrons (with NO2+ ions) than production of electrons by photo-ionization of atomic oxygen, the principal constituent of the F-region. That lowers the MUF in the summer (NM7M). Want to know what to expect based on history over an 11-year cycle. Look here http://www.qth.com/ad5q/ and select 11 years ago, to the month and you will get a quick correlation of cycle and seasonal patterns. History pretty much does repeat itself in trends.

A few thoughts and observations come to mind after working HF from Alaska for quite a few years. You can have that killer tower and beam, big amplifiers and all the latest gizmos, but getting a clearer understanding when propagation is most favorable and the many S Units of signal strength it brings when coupled with some operating skill, far exceeds other concerns like equipment. The big stations may work'em first but timed right you can do very well too. A low dipole can sound very impressive and be amazingly effectual when you have propagation going for you. Picking the time and band for the season is the magic in the ether

KL7J

Misc: Lots of propagation with auroral considerations at this site: http://66.175.38.157/kn4lf8.htm

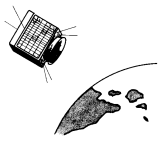
There will be special door prizes at the June Meeting.
Only one ticket per paid up membership will be allowed. No tickets for non-members for this one. No additional tickets will be sold.

1st Place: Alinco DR-605T Dual-Band VHF/UHF Radio
2nd Place: MFJ 259B Antenna Analyzer
3rd Place: Sunday Champagne Brunch for two at the Sheraton Hotel in Anchorage

Alaska QRP Club meets the Third Friday of every month – 7:00 PM (Some show for dinner at 6PM): Hams with QRP (low power under 5 watts) and Homebrewing interests meet for a social meeting monthly. Meet at Dennys (in the back room) on DeBarr near Bragaw. Contact is Jim Larsen, AL7FS, JimLarsen2002@alaska.net or 345-3190.

Low Earth Orbit (LEO) Net

The **9 AM LEO Road and Weather Group** has moved to the **147.27/87 WL7CVG Mt. Susitna repeater** with a + split and **103.5 Hz tone**. Remember to check your tone encode and make sure it is set to 103.5 Hz as that is the only tone the 147.27 WL7CVG repeater will now accept.



Thank you,
The Gahleo Group Moderator
Dan O'Barr, KL7DR
Wasilla, AK
KL7DR@ARRL.net

++++++++++++++++++++++

N2CQ QRP CONTEST CALENDAR
May 2004

AGCW QRP/QRP Party (CW) ... QRP Contest!
May 1, 1300z to 1900z
Rules: http://www.agcw.de/english/contest/agcw-dl_e.htm
~~~~~~

Adventure Radio Spartan Sprint (CW) ... QRP Contest!
May 4, 0100z to 0300z (Monday evening US/Canada)
Rules: http://www.arsqrp.com/
~~~~~~

Dayton Hamvention (QRP Event - FDIM)
May 14-16
Info: http://www.hamvention.org/
~~~~~~

QRPARCI Newcomers Run (CW) ... QRP Contest!
May 15, 1800z to 2000z
Rules: http://2hams.net/ARCI/Newcomers%20Run.htm
~~~~~~

Run For The Bacon (CW) ... QRP Contest!
May 17, 0100z to 0300z
Rules: http://fpqrp.com
~~~~~~

Look Around in the Field (LAITF) (CW) ... QRP Contest!
May 22, 1600z to 2200z
Rules: http://www.amqrp.org/contesting/laitf.html
~~~~~~

QRP ARCI Hoot Owl Sprint (CW) ... QRP Contest!
May 30, 2000 to 2400 (Local Time)
Rules: http://2hams.net/ARCI/hoot.htm
~~~~~~

Michigan QRP Memorial Day Sprint (CW) ... QRP Contest!
May 30, 2300z to May 31, 0300z
Rules: http://www.qsl.net/miqrpclub/contest.html
~~~~~~

72 de
Ken Newman - N2CQ
N2CQ@ARRL.NET
http://www.njqrp.org/data/contesting.html

++++++++++++++++++++++

Anchorage Amateur Radio Club Board Meeting
(Unapproved)

April 20, 2004

The AARC Board met Tuesday, April 20, 2004 at Hope Community Resources Administrative Building, 540 West International Airport Road. In attendance were President Jim Larsen, AL7FS, Vice-President Randy Vallee, KL7Z and Treasurer Steve Jensen, KL0VZ. Also in attendance were Directors Lil Marvin, NL7DL, Mike O'Keefe, KL7MD, George Wilkinson, KL1JJ, Judi Ramage, WL7DX, Jim Tvrdy, KL7CDG and Jim Wiley, KL7CC. John Lynn, KL7CY, Heather Hasper, KL7SP, Steve Gehring, NL7W and Keith Clark, KL7MM were also present.

A quorum being present, President Jim Larsen called the meeting to order at 7:25 PM.

Lil Marvin discussed a bulk mail she and Doug Dickinson received and thought might be a misuse of the club mailing list. No other board members received it but Jim Wiley will investigate.

The minutes from the March 16, 2004 Board meeting were reviewed and accepted.

John Lynn and Heather asked to be added to the distribution list for board Minutes.

Reports
Treasurer
Steve provided a written report. He advised the Board that income is down by 15% and that spending is slightly above budget. He opened discussion about new gambling legislation and the possible affect on the Club's income stream in coming years.

Gaming
John advises that the Pool Hall is in place and that there is no alcohol on the premises.

ARES
George discussed the Sat. meeting and tent set-up. Jim Larsen had a disk with photos for everyone to review at meetings end.

John covered Walk for Hope and requested the CCV to be staged the night before.

Mike advised that Conoco Phillips is also doing an emergency preparedness drill the same day as the BP event, and that Conoco has requested a ham be available in town to help them exercise there HF equipment on the slope.

Jim added that he forwarded information on another event to TJ.

Jim mentioned an FCC Omnibus bill that would allow Amateur Radio to exercise on the state Freq. of 5167.5, and hopes that it will be adopted by the end of this summer.

VEC
Jim advises that the remote testing software is apparently complete. They hope to exercise the software soon by running a Beta test into Wasilla sometime in May, with a real test give by the end of June, in preparation for a demonstration at the VEC conference in Gettysburg the end of July.

He says there is also some discussion about having some new ham classes.

Membership
There was no formal report.

Corporate Documents Revision
This is ready to send to the membership for review prior to a General Membership vote on June 5. As an inducement for a quorum of the General Membership to attend Randy moved to offer three bonus prizes consisting of An Alinco 605, and MFJ 259B antenna analyzer, and a $75.00 gift certificate for

Sunday Brunch at the Sheraton. Also to stipulate that the drawing is for members only and each member only receives one ticket. The motion was approved.

ARRL Convention
After discussion John Lynn agreed to Chair the event with Judy's assistance. Dates are Sept. 11 and 12. Details will follow.

ALMR
John advises that the Municipality is moving slowly, and after discussion about purchasing another brand the Board decided to wait till the Municipality can provide the free radios.

Warehouse Facility
Jim Wiley advises that the building. Owner is ready to rent the space and if we don't take it soon, he will rent it to someone else. There was discussion about another Firehouse soon to be vacated, and that will be investigated briefly, but a Special Board Meeting will be planned to get the issue settled so that it can be presented to the General Membership at the next meeting.

Board Member Appointment
Mike moved to recommend to the General Membership that Steve Gehring, NL7W be appointed to replace the Board Seat vacated by Kyle Sandel; the motion was approved.

State Fair
George gave us details on our spot at the Fair and requested the balance of the fees. Judy moved to approve $850.00 for the space fee and additional entry and parking passes; the motion was approved.

Equipment Purchase
Keith advised the Board that the Field Day committee would like to purchase some used equipment from a Board Member in place of the new equipment that had been approved at the last General meeting. To avoid any appearance of impropriety, the committee wanted the Board's approval for an arms length transaction, thus saving the club several hundred dollars. There was no objection.

Steve mentioned that his term will expire this year and that the Board needs to be looking for a replacement.

There being no further business the meeting was adjourned at 8:55 PM.

Respectfully submitted by Philip Mannie, Secretary, with thanks to Keith Clark.

++++++++++++++++++++++

American Red Cross - Fast Scan TV

The Alaskan American Red Cross Headquarters in Anchorage is looking into Fast Scan TV availability. **So if you are interested in helping the American Red Cross in Anchorage develop a system like Fast Scan TV** please contact me at my home. The phone number is 243-4675.
73s, Mike O'Keefe - KL7MD

++++++++++++++++++++++

Emergency Response Communicators (ERC) Net

Dan O'Barr, KL7DR reports that there is are some new nets on Sunday nights. The ERC Net is designed to help hams get on the air more often, stay familiar with their equipment, and get to know their fellow hams in the area so that they can work together better in an emergency. Check it out.

Sunday, 7:30PM on 147.27 Repeater (103.5 tone)

Sunday, 8:30PM on 3.880 MHz HF SSB

VEC Remote Testing Program

Jim Wiley, KL7CC

As many of you already know, we have been working on a project that will allow us to give exams via remote control - specifically, over the internet. This project is endorsed by the NCVEC (National Conference of Volunteer Examiner Coordinators), approved by the FCC, and funded by the AARC (to the tune of about $11,000). This project has been almost 2 years in the making, and will, we hope, be the answer to people in the bush who want to get their ham license, but cannot attend a VE session.

Initial Testing occurred the first weekend in May but results were not available in time for the newsletter.

++++++++++++++++++++++

Motivation Station – Alaska State Fair

George Wilkinson / KL1JJ

I was recently asking someone for help with the AARC's Palmer State Fair booth and in return was asked, "Why would a ham choose to join the AARC?" Yeah, well, my first thought was, "Why wouldn't they?" Hows about fellowship with like minded people, education, edification, pooled resources, et cetera, et cetera, et cetera? This doesn't get us any closer to the heart of our current effort, though.

A question more to the point of having the booth at the Fair is, "Why would a young non-ham would want to become a young ham?" Our targeted market is that bunch of kids running up and down the fair-way with some kind of junk food hanging off their bottom lip and looking for the next curiosity. Like a booth with radios, videos, and stuff.

Think about the average age in the AARC. How many of us are willing, and able, to be a member of a rapid response team requiring three days in the snow and cold? In our youth that the kind of challenge would have been considered fun. Topping it would have required jumping out of an airplane two miles up, at night, into the ocean, swim to shore, yadda yadda. Hooo boy. No more.

There was a time when I and my buds would say things like, "How come the Generals don't get out into the battle? They

send us kids out here but won't let us drink or vote." As we get older we realize that no way do we
want our battles fought by aging soldiers who stiffen up in the cool, let alone the cold, and are too top heavy even before a heavy pack is thrown into the mix. No way. We'd loose every time.

Young people who are trained and backed up by the older hams are necessary for maintaining a balanced population of amateur radio operators. I get a real kick out of kids who are ahead of me in licensure. They don't have my years of wisdom (cough cough) and experience, but I can lend them some of mine until they acquire their own, and if everything turns out right they'll be ahead of where I am when they get to be my age - if not before.

Another thing. The Amateur Radio Service is a system and all systems require maintenance. Everything in a system wears out so parts, components, members, whatever, must be replaced. We replace our worn out equipment and we must replace ourselves.

Besides, how often do you get the opportunity to show off for two weeks without being accused of bragging?

If you would like to help with the AARC's Fair booth drop me a line at gdwilkinson2@yahoo.com. Immediately I'm looking for three specialists: display, scheduling, and facilities (set-up & tear-down). Booth workers during the Fair will have their tickets pair for. We have a great location and the our Fair contact, Pam Troutman, the Vendor & Exhibits Manager, has given us more than we asked for.

George Wilkinson / KL1JJ
Nemo praesens nisi intelligat. One is not present unless he understands

++++++++++++++++++++++

"Hams do it till it Hertz!"

++++++++++++++++++++++

Notes from ARES SEC

Amateur Radio Emergency Service
Section Emergency Coordinator

This is a project that the ARRL is working on to provide another mode of comms for use during emergencies, in order to provide better and faster comms for the agencies we serve. If anyone who reads this is interested in helping set up the system here in Alaska, please contact me at: ad4bl@arrl.net

From: The ARRL Ad-Hoc Committee on ARES Communications (ARESCOM)

Recently, a package was provided to you asking for comments, which described the ARRL Board of Directors desire for a Global digital email network. In its partnership with Homeland Security, the ARRL Board of Directors followed up with the formation of the ARESCOM. After much research, last January the ARESCOM recommended to the Board of Directors that Winlink 2000, an operational and reliable digital Amateur Radio network, be deployed as a complement to the existing emergency communications services now in place with the various field organizations. As a result, many of you asked for a synopsis of the operations performed by Winlink 2000 and how it will add to the already existing field organization communications. This information is provided as a follow-up regarding the deployment of Winlink 2000 as a national, all-inclusive digital network for ARES.

Since the package was sent describing both aspects of the digital network as well as suggested changes to the field organizations to manage it, feedback from the field has indicated there should be more clarification about what value a digital emergency communications network will bring to emergency management. Much of that discussion seemed to focus on the ability of a digital network to totally replace an existing ARES communications system. However, any digital emergency communications network is but one capability, and not meant to be exclusive, but rather to compliment the existing communications methodologies that exist today in the ARRL field organizations.

While a national digital message network or any other ARES service should be robust and redundant enough to function as a catastrophic backup, focusing exclusively on any one specific capability may result in many missed opportunities to provide value elsewhere. There is no requirement for government at any level, local, state, or national, to use Amateur Radio resources, regardless of their effectiveness. They must want to use Amateur Radio because they see that it provides a capability that adds value. It is their party, and we want to get invited. The least we can do as Amateur volunteers is offer to provide the most familiar, sensible, transparent and technologically sound options we have available, and no single option is exclusive. They must be put together as a value-added package that provides these agencies with options not currently available otherwise, including an email option when the Internet fails. In addition, a single and unified field organization must be able to manage these processes effectively and without conflict.

If we are going to continue to remain in the mainstream of emergency communications for those communities we serve while attracting new people into the hobby, and at the same time, not appear antiquated, we must not only strengthen our organizations and communications methods, but also continue to provide value-added services to those who will ultimately benefit from their use. Below is specific information about the Winlink 2000 Global Digital Network:

- The Winlink 2000 Amateur Radio digital network has been in continuous operation for over 5 years, Worldwide. It is by far the largest email over radio network in the World, Amateur or commercial. It currently pushes over 150,000 radio SMTP mail (email) messages or over 290,000 minutes through its system monthly to over 5,100 Amateur Radio users and their 68,000 email recipients. This is much more than all NTS,

NTS/D and MARS traffic transfer combined. It does this over Radio via VHF/UHF AX.25 Packet or on HF using the Pactor modes, with its "B2F" binary protocol. Depending on the type of data being transferred, this binary, error correcting protocol may be compressed up to 44 percent, and reach speeds on HF of up to 3600 Bits per second, faster than any other known HF data transfer protocol for the given bandwidth. For local and regional "last mile" communications, the average speed used on VHF/UHF Packet runs from 1200 BPS to over 9,600 BPS (baud.)

- The average response time for the average message to reach its pickup destination is less than 1.8 minutes and it does this with near 100 percent accuracy, depending on the Internet recipient's Internet Service Provider's condition. When local or regional "last mile" email is transferred with the use of a regional hubbing ARES Winlink participating station, the communication is instant.

- Depending on how it is deployed, Winlink 2000 uses either MS Outlook, MS Outlook Express, Eudora Mail, or Airmail for its client interface, and has the ability to send a single message to both multiple radio and email recipients with an additional ability to send multiple binary attachments.

- In addition to a radio entry to the system, there is also a password protected "telnet client" within the Airmail and Paclink driven MS Outlook./Outlook Express password protected clients as well as a password protected WEB Browser access.

- There are currently 41 Publicly listed participating Stations, Globally, called "PMBOs," that are synchronized with two Central mail servers, called "CMBOs." These CMBO Servers are in secure locations, one in the Eastern US and One in the Western US. Plans call for more of these synchronized servers in the near future. http://winlink.org/stations.htm or http://www.winlink.org/worldmap.htm,.

- It is understood that the majority use for such a digital emergency communications network is within the local disaster area between served agencies and between agencies and their field units. Therefore, in addition to these "Public" PMBOs, there are "ARES" PMBOs, which are not publicly listed. These ARES PMBOs are set up solely for the purpose of providing emergency communications to local or regional areas by hubbing emergency Internet email outlet when the Internet is down or not functional. In other words, the local ARES PMBO will may remain operational with those agencies and individuals who have direct access to communicate through it as an email hub. This is true with or without access to the CMBO email servers or the Internet. If these ARES PMBOs maintain Internet connectivity with the Central Servers (CMBO), Internet email may flow out of the area to anywhere, however, even with loss of connectivity to the CMBO, or with total loss of Internet, these ARES PMBOs may continue to hub email traffic between local or regional agencies, and their field units from their own email programs in their own offices, end-to-end, seamlessly and transparently. Should their be no Internet from the local or regional PMBO to the CMBO servers, Airmail, a freeware "client" or end-user package, may be used to maintain Internet connectivity as a single user. All PMBOs used by an end-user within the last 90 days are viewed as one inlet/outlet, and are functionally transparent.

- With the deployment of the VHF/UHF "Paclink-to-Telpac" components of the Winlink 2000 system, Served agencies may simply add an emergency communications email account to their existing email programs on their own computers, within their own offices, without the addition of invasive software on their desktop computers, or without disturbing the firewall/router within the agency. This, of course, is a very saleable item to such agencies wishing an alternate outlet to SMTP email. It is more secure than any public ISP providing them email currently, but more about all that later.

- The Winlink 2000 Paclink module accomplishes alternate routing of email on multiple computers with a single application on any one computer either in front or behind the router/firewall within the served agency, and acts as a mini email server while providing an outlet to any VHF/UHF Packet radio modem. On the other end of this VHF/UHF link is the Winlink 2000 Telpac node which, when co-located with the ARES PMBO, may hub all activity within its reach. In addition, additional Telpac nodes may be used when there is an Internet or TCP/ip link available between the PMBO and the VHF/UHF Telpac node. The client modules and the Telpac node module have backup network routing abilities.

- In addition to email messages, the Winlink 2000 system contains a Global catalog of over 700 Weather products and much other useful help information. It also contains an ability for each ARES PMBO to contain its own retrievable bulletins. Information sought in the bulletin process may contain graphic or binary attached data making this feature an extremely valuable resource for both the Amateur community and the agencies they serve..

- Winlink 2000 also contains an ability to silently or publicly and Graphically read or trace the position of those who use it, depending on which options are chosen. This may be of tremendous value for those wishing to keep track of their field service units. It may keep a permanent record of field unit positions.

The philosophy behind the Winlink 2000 effort is simply that SMTP email has been universally adopted, and is used for most digital communications where detail and deployment of complex timely written material is necessary. It keeps a permanent record of each message source, destinations and content, and perhaps more importantly, it does not add to the already stressful ordeal of such communications during an already stressful emergency situation. It is the perfect compliment to the voice network capabilities now deployed by the field organizations.

For more information:

- Please find the attached, updated ARES FAQ document regarding ARES & Winlink 2000.

- ARES & Winlink 2000, an EchoLink open discussion conference hosted on the W8FSM conference server, Wednesday evenings at 00:00 UTC.

- Related Yahoo Groups:
http://groups.yahoo.com/group/telpac-paclink/ Technical "how-to" group for Winlink 2000 Paclink & Telpac modules
http://groups.yahoo.com/group/wl2kemcomm/ Discussion group for EmComm and Winlink 2000.

- Specific Winlink information on http://winlink.org
- http://winlink.org/Emergency.htm Examples of use, ARES presentations/ WL2K Information.
- http://winlink.org/Presentations/ARES.ppt Sample ARES Presentation (PowerPoint)
- http://winlink.org/Presentations/ARES.pdf Sample ARES Presentation (PDF)
- http://winlink.org/news.htm Articles of Interest: See Sail magazine article for best example of public experience.
- http://winlink.org/status View into the real-time Winlink 2000 Network status (public version)

Linda AD4BL
ALASKA SEC STM
ad4bl@mosquitonet.com
Fairbanks, Alaska

ARES Contact Information

District Emergency Coordinator:
Phil Mannie, KL0QW
Contact via Pager: 268-7609
Email via kl0qw@alaska.net

Additional information on ARES can be found at the following URL:

http://www.qsl.net/aresalaska/

++++++++++++++++++++++

Fred Toliver, AC5MK, (ex-KL7HM) Silent Key

Fred was a past AARC treasurer as well as gaming chairman and many of us knew him well. He set up the endowment with Alaska Pacific University. Fred was a great supporter of the Walk For Hope and the Fur Rondy races. In addition he went out on the Iditarod trail several times. Fred was 61 and was being treated for the cancer since 2002.

Fred's wife, Ann, asked us to pass on her address in case anyone wanted to write. It's:

794 Mountain View Drive
Moab, UT 84532. Phone: 435-259-4425

Also:
Bill Barber, KL7GM is now a Silent Key

++++++++++++++++++++++

Frequently Asked Questions About Amateur Radio and Broadband Over Powerline (BPL / PLT)

An excellent resource for understanding BPL can be found at:
http://www.qrpis.org/~k3ng/bpl.html
and also at:
http://www.arrl.org/tis/info/HTML/plc/

++++++++++++++++++++++

Alaska CW Net (ACWN)

Alaska CW Net (ACWN) still maintains a daily traffic watch on 3534 7042 and 14050 Khz....from Fairbanks. ACWN is a registered ARRL Section Net in Alaska.

Starting at about 0230Z every evening, AL7N in Fairbanks **maintains traffic watch** simultaneously and as continuously as possible on all three frequencies, until the following morning about 1700Z. Also guards 2 meters 144.100 Mhz (CW mode) in Fairbanks area.

Weekends, monitor continuously whenever in the house where can hear the speakers, day and night.

Saturday schedules with K6KPH on 14050 at or after 1800Z,whenever we can get thru depending on 20 meter band condx and contest QRM. K6KPH is relay to lower 48 NTS; closes down about 0100Z.

ACWN encourages other operators around the state of Alaska to participate and will gladly exchange WX and signal reports if nothing else...just to keep the pipe open. Will handle legal 3rd party written traffic to anywhere, even to e-mail addresses if specified. Working CW speed is regulated to suit the operator receiving...

If other nets have traffic they can't move, send 'em down to ACWN! "Listeners" on the ACWN watch frequencies probably won't hear anything unless they call with traffic or just call for a signal check/report which will be gladly supplied to anyone if we can hear 'em at all.

Ed Trump, AL7N ACWN Net Manager

ARES supports BP Earthquake Expo

Jim Larsen, AL7FS

On Wednesday, April 28th, Jim Larsen (AL7FS), Phil Mannie (KL0QW) and George Wilkinson (KL1JJ) manned the CCV and the tables at the recent British Petroleum Earthquake and Emergency Preparedness Expo at the BP building in Anchorage.

This year we set up an Amateur Television Demo (ATV) to show how ATV could be used to transmit live video for use in damage assessment. The camera and radio were set up outside with the power provided by portable batteries. The signals were received in the building in the Expo hall on a small television. This technology actually created some extra interest among the participants with some actually taking notes on what it can do. The Anchorage EOC representative caught on to the capability very fast.

We met with Vince McCoy of the MOA/EOC and had long productive conversations concerning the ARES and amateur radio roll in the EOC and future planning. Vince was keen on having us participate in more planning sessions at the EOC. In addition we met with Tom Smayda of the Alaska Division of Emergency Services. We shared some literature with him and short discussions.

This time we took the time to add note cards to all the radios so that visitors could take in the capabilities in a visual mode instead of just what we have time to tell them. It seemed quite effective and we are considering making the cards on a computer and laminating them. Another possibility is to permanently affix clear labels to each location to describe its use.

BP took good care of us and we had our parking spot all reserved again this year. And BP even provided a free lunch. So who says there is no such thing as a "free lunch".

al7fs

Anchorage Hamfest and Flea Market is scheduled for September 11th and 12th time frame. Please contact John Lynn (KL7CY) or Judi Ramage (WL7DX) if you can help with the arrangements.

kl7cy @ arrl.net 337-1091

damage @ gci.net

Ham Data You Can Use:

Officers

President	Jim Larsen, AL7FS
Vice President	Randy Vallee, KL7Z
Secretary	Phil Mannie, KLØQW
Treasurer	Steve Jensen, KLØVZ
Trustee	Jim Feaster, KL7KB
Activities Chairman	Craig Bledsoe, KL4E
News Letter Editor	Jim Larsen, AL7FS
Membership Chairman	Fred Erickson KL7FE
Past-President	-

Three Year Board Members

Jim Wiley, KL7CC
Richard Block, KL7RLB
Lil Marvin, NL7DL

One Year Board Members

Pat Wilke, WL7JA
Jimmy Tvrdy, KL7CDG
Judi Ramage, WL7DX
Kyle Sandel, AL7J
George Wilkinson, KL1JJ
Mike O'Keefe, KL7MD

AARC web page & Email contact addresses:

Homepage:	**http://www.KL7AA.org/**
Email Reflector:	KL7AA@QTH.NET
Webmaster:	AL1G_ak@yahoo.com
President:	JimLarsen2002@alaska.net
Membership:	frederickson@iname.com
Newsletter:	JimLarsen2002@alaska.net

News Letter Submissions, Information or corrections:
Submissions must be received 2 weeks before meeting
Email: JimLarsen2002@alaska.net
Mail: 3445 Spinnaker Drive, Anchorage 99516

KL7G CODE PRACTICE SCHEDULE
Schedule: 7:00am, 10:00am, 4:00pm, 7:00pm, 10:00pm AK time, every day on 145.35 MHz @ 7 wpm
NOT ACTIVE AT THIS TIME

+=+=+=+=+=+=+=+=+

Nets in Alaska:
The following nets are active in South-central Alaska:
Alaska Sniper's Net 3.920 MHz 6:00 PM daily
Alaska Bush Net 7.093 MHz 8:00 PM daily
Alaska Motley Net 3.933 MHz 9:00 PM daily
Alaska Pacific Net 14.292 MHz 8:00 AM M-F
ACWN (Alaska CW Net) 3534, 7042 Daily @ 0700 – 1000, and 1900 - 2400 Alaska Time - AL7N or KL5T monitoring.
Net Purpose: Formal NTS traffic via CW.
No Name Net 146.85/.25 repeater Sundays 8:00 PM
Grandson of SSB Net 144.20 USB Mondays 8:00 PM local
Big City Simplex Net 146.520, 446.0, & 52.525 FM
With Packet 145.01 Tuesdays 8:00 PM local
ARES net 147.27/87 103.5Hz - Thursdays at 8:00 PM local
PARKA net 147.30/.90 Thursdays at 7:00 PM local
ERC VHF Net 147.27/87 103.5Hz – Sunday 7:30 PM local
ERC HF Net 3.880 MHz – Sunday 8:30PM local

Any AARC sponsored repeater, with or without an auto-patch, will always be open to all licensed amateur radio operators in the area who are authorized to operate on those frequencies.

Anchorage & Mat Valley Area Repeaters
KL7AA systems at Flattop Mt., 2,200 ft
146.94/34 MHz, 80 watts, autopatch, 141.3 Hz PL
224.94/223.34, 25 watts, no patch, no PL
444.70/449.70, 25 watts, autopatch, 141.3 PL
****147.27/87 MHz, no patch, Mount Susitna 103.5 Hz**
KL7CC, Anchorage Hillside, SCRC & QCWA
146.97/.37 MHz, 30 watts, autopatch, 103.5 Hz PL
KL7M Anchorage Hillside
147.21/.81 MHz, on IRLP, 97.4 Hz PL
KL7ION at Mt. Gordon Lyon, PARKA 3,940 ft
147.30/90, MHz - 80 watts, no patch, 141.3 Hz PL
KL7AIR Elmendorf AFB, EARS
146.67/.07, 107.2 Hz PL
KL7JFU, KGB road, MARA club
146.85/.25, autopatch, no PL
KL7DOB, Alcantra (Wasilla Armory)
146.64/.04, simplex patch, no PL
KL7DJE at Grubstake Peak, 4,500 ft. <down >
147.09/.69 MHz, 25 watts, no patch, 100 Hz PL
444.925/449.925, 10 watts, no patch, 141.3 Hz PL
KL3K, Girdwood
146.76/16 MHz, 25 watts, no patch, 97.4 Hz PL
South Central Area Simplex Frequencies
146.52 MHz Calling and Emergency frequency
147.57 / 447.57 (crossband linked) HF spotters & chat, 103.5 HZ PL
146.49 MHz Anchorage area simplex chat
146.43 MHz Mat Valley simplex chat
147.42MHz Peninsula simplex chat

Internet Links, the favorites from our readers:

QRP and Hombrew Links http://www.qsl.net/al7fs
AARC http://www.KL7AA.org/
SCRC http://www.KL7G.org
EARS http://www.qsl.net/kl7air
MARA http://www.kl7jfu.com/
Moose Horn ARC http://www.alaksa.net/~kl7fg
ARES http://www.qsl.net/aresalaska
KL7J http://www.alaska.net/~buchholz
Fairbanks AARC: http://www.kl7kc.com/
Yukon Amateur Radio Association:
http://www.klondike.com/yara/index.html
HAARP Project:
Amateur Radio Reference Library
http://www.area-ham.org/library/libindex.html
Hamradio: http://www.hamrad.com/
Solar Terrestrial Activity http://209.130.27.95/solar/
ARRL http://www.arrl.org/
Propagation Report Recording 566-1819

Please let us know if there are other clubs pages or good starting points that should appear here. Report dead links or bad info to JimLarsen2002@alaska.net.

+=+=+=+=+=+=+=+=+

NEWSLETTER ARTICLES; All articles from members and interested persons are very welcome. If you wish to submit any articles, jokes, cartoons, please have it typed or neatly handwritten. It can be submitted by mail, computer disk or E-mail to the newsletter editor at the address listed above. Submissions must be in the hands of the editor **no later than the 14 days prior** to the meeting or it may not be included. If you want articles other than QRP, please submit them. If no submissions, I use what I am interested in, naturally.

+=+=+=+=+=+=+=+=+

Regular HAM Gatherings:

Alaska QRP Club, Third Friday - 7:00 PM: Hams with QRP (low power under 5 watts) and Homebrewing interests meet for a social meeting monthly. Meet at Denny's on DeBarr & Bragaw in the back room. Hungry QRPers start showing up about 6PM. Info contact Jim Larsen, AL7FS, JimLarsen2002@alaska.net or 345-3190.

Tuesdays Lunch, 11:30 AM: Join the gang for lunch and an eyeball QSO at the Royal Fork, "South, on Old Seward Highway. Attendance varies from 8 to 24 each week.

Thursdays Brunch, 10:30 AM: Brunch at Lily's on Tudor Road just East of Tony Romas. A great bunch of folks attend this one.

Saturdays Breakfast, 7:30 AM: Here is a good way to get started on the weekend. Come and meet with some of the locals and have a great breakfast at Phillips Restaurant, at the corner of Arctic and International. Great Fun.

+=+=+=+=+=+=+=+=+

THIS MONTH'S EVENTS

1st Friday each month - AARC general meeting - 7:00 PM in the Carr-Gottstein Building, on the APU Campus. Talk in will be on 147.30+ repeater.

1st Tuesday each month: VE License Exam 6:30 PM, at the Hope Cottage offices, 540 W International. Bring photo ID, copy of license (if any) and any certificates of completion.

1st Tuesday each month: EARS general meeting - 6:30PM in the club house/shack in the basement of Denali Hall (building 31-270) on Elmendorf AFB. Talk in on 147.67- repeater.

2nd Friday each month: SCRC general meeting at 7:00 PM at Denny's on Debarr & Bragaw. Talk in on 147.57 simplex.

2nd Saturday each month: VE License Exams at 2:00 PM. at Hope Cottage 540 W. International. Be sure to bring photo ID, copy of license (if any) and any certificates of completion.

2nd Saturday each month: PARKA Meeting at 11:00 AM. at Peggy's, across from Merrill Field.

3rd Tuesday each month: AARC Board meeting at 7:00 PM at Hope Cottage 540 W. International. All are invited and encouraged to attend.

3rd Friday each month: Alaska QRP Club. 7:00PM at Denny's on DeBarr in the back room. Info: Jim Larsen, 345-3190. Bring projects to share with the group. Some show up at 6:00PM to eat.

3rd Saturday each month: ARES General meeting 9:30AM to 12:00 PM. Call Phil Mannie (kl0qw@alaska.net) at 762-9590 for additional information. Also check for ARES Info at: http://www.qsl.net/aresalaska/

The last Friday each month: MARA meeting at 7PM Fire Station 61, located two blocks up Lucille Drive, from the Parks hwy. Talk-in help for the meeting can be acquired on either the 146.640 or 146.850 repeaters. Further details can be found by contacting Len Betts, KL7LB, lelbak@yahoo.com .

The last Saturday each month at 11:00 AM: Quarter Century Wireless Assoc - QCWA at the Royal Fork, South of Dimond on Old Seward Highway. You need not be a QCWA member to attend.

Who Do I Contact to Join AARC?

Fred Erickson KL7FE -
frederickson@iname.com

Phone number: 345-2181

Anchorage Amateur Radio Club
Membership Application/Renewal

Membership Chairman: Fred Erickson KL7FE
email: frederickson@iname.com
Phone number: 345-2181

Please, check your mailing label for your expiration date.

Mail-in Membership Application

___ New ___Renewal

Name: _____ **Callsign:** _____

Address 1: _____

Address 2: _____

City _____ **State:** _____

Zip Code: _____

Home Phone: _____

eMail address: _____

Dues for a calendar year are as follows: • Individual membership $20.00 • Individual and Spouse $25.00 • Student $10.00* • Life $250.00 *"Student" is defined as any individual who is enrolled full-time at any educational institution, using the criteria for full-time enrollment of that institution.

I am enclosing payment for:

Subscription/Renewal for_____ year(s).

Total USD Enclosed:_____

Please Mail your Payment and this Completed Application to:

Anchorage Amateur Radio Club
c/o Fred Erickson, Membership Chairman
12531 Alpine Dr
Anchorage, AK 99516-3121

Anchorage Amateur Radio Club, Inc
Post Office Box 101987
Anchorage, Alaska 99510-1987

PRSRT STD
U.S. Postage
PAID
Anchorage, AK
Permit No. 223

Return Service Requested

It’s almost time again.

K0JGL-Jeanette Larsen of Atlantic Iowa (AL7FS Mom)