Volume 34 No. 9: September 2005 Anchorage Amateur Radio Club

Next Meeting September 2nd

NVIS

TJ Sheffield, KL7TS, will be showing a "Near Vertical Incidence Skywave" (NVIS) antenna presentation for the September General Membership Meeting. Also, come and enjoy slides from Field Day, the Dog Jog, the 10K

Classic and other ARES events.

ATU

I am looking for an Assistant Activities

Coordinator to help set up guest speakers for the meetings. Due to my current work schedule, setting up guest speakers and attending board meetings and club meetings has become difficult. If you would like to help, or have suggestions for guest speakers, feel free to call me @ 770-3928 or email me KL1RK at yahoo.com. Thanks for your help.



If you like to **stay in touch on KL7AA news** and other posts of local interest.

Step #1: First point your browser to (click the link below): <u>http://mailman.qth.net/mailman/listinfo/kl7aa</u>

Step #2: On the web page you will see a section titled "Subscribing to KL7AA". Enter your e-mail address in the "Your email address" entry box.

Step #3: Pick a password for your account and enter it in the box marked "Pick a password" and then enter the same password in the box marked "Reenter password to confirm". This password will be used to change your settings on the list such as digest mode, etc.

Step #4: If you would like the e-mails in daily digest form click yes on the line marked "Would you like to receive list mail batched in a daily digest?"

Step #5: Click on the "Subscribe" button below the information that you just entered.

From: http://www.arrl.org/acode.html

The Amateur's Code

The Radio Amateur is

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

--The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.



Information on Low Earth Orbit Satellites at

http://gahleos.obarr.net/

ANCHORAGE HAMFEST

The Anchorage Hamfest will be held this year on Saturday, October 1st at the Christian Church of Anchorage. This is located on the Southwest corner of the Lake Otis Parkway and O'Malley intersection. Doors open to vendors at 8am and to the public at 9am. We will be featuring lectures on antenna modeling, the history of Alaskan Ham Radio, amateur radio in the outdoors, and many others! Come and enjoy the fun!

Tables will be \$20. There will also be a Country Store again where your items can be sold for a 20% commission if you don't want to do a table. Bill Reiter, KL7ITI has once again volunteered to handle the store.

Admission is free to the public.

Any questions can be directed to myself via my email KL1RK(at)Yahoo.com or call 770-3928.

Jesse L. Jones KL1RK Anchorage, Alaska

AARC Fur Rendezvous 4th Avenue Dog Race Information Board Renovation

The AARC has maintained an Information Board tracking the progress of the Fur Rendezvous Dog Races since 19??. The Board sits on a flat bed adjacent to the Official Dog Musher Association Shack. Twelve Ham Operators in the field, call in information about the dog teams as they pass their checkpoints. Three Ham Operators man the Board, a Control Operator and two other Hams. The Control Operator gathers and records the input from the checkpoint Hams, relaying this information to the Dog Mushing Association Officials. The other two Hams use the information to chart the Dog Teams progress on the Board with magnetic markers as the teams race around the 25 mile course that begins and ends at 4th Avenue and D Street.

The Board is in need of a Major Renovation. Susan Woods, NL7NN, George Meacock, NL7RD, and Gladys Meacock, KL7JB, have volunteered to take on the task. This committee gave a presentation to the AARC Board and received permission to do the Board renovation.

The Board provides valuable information to the Dog Mushers Association and the hundreds of people that line 4th Avenue watching the Dog Races. The Dog Mushing Association tried cell phones but found that this was not as effective as the Ham Operators for immediate true updates along the track. The cell phones interfered with the Radio Broadcasting for one thing. The viewing public has immediate visual information about the teams as they scratch, pass, etc. Very exciting for them. The 4th Avenue and checkpoint Hams answer many questions about the racing teams. Last year Channel 2 News showed the Board every night.

Since the Board is seen by hundreds that line 4th Avenue, much photographed by the media and serves a valuable volunteer relationship with the Dog Mushers Association, it is in our opinion a premier showcase for the AARC. The AARC logo needs t be more visible to the public both on the board and on vests worn by the participating Hams. Some of the objectives are to make the Board more user friendly to the viewers, (redo the map and magnet system presently used),develop a more input/output relationship with the Dog Mushers Association, (They are very appreciative of our efforts), have all information about the Board information on Disc readily available to the AARC and to develop a timely and user friendly method of relaying necessary information to all hams involved with the project.

These are just a few suggestions. Our committee will get an estimate of having a sign painter redo the Board, probably the major expense but necessary. We would like any suggestions that members of the AARC have. You can of course "call us" using our call signs and/or send your suggestions via e-mail Thanks in advance for your comments. Gladys, KL7JB

George and Gladys Meacock meacockgandg at att.net NL7RD KL7JB Susan Woods nl7nn4606 at yahoo.com NL7NN



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, <u>JimLarsen2002 at alaska.net</u> or 345-3190.

Echolink *QRP* conference: Every Sunday at 5PM ADT. Connect to the QRP Conference.

Reward Offered

A reward of 500 microfarads is offered for information leading to the arrest of Hop-A-Long Capacity. This unrectified criminal escaped from a western primary cell where he had been clamped in ions awaiting the gauss chamber.

He is charged with the induction of an 18 turn coil named Millihenry who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. Capacity is also charged with driving DC motor over a Wheatstone Bridge and refusing to let the band-pass.

If encountered, he may offer series of resistance. The electromotive force spent the night searching for him in a magnetic field where he had gone to earth. They had no success and believed he had returned ohm via a short circuit. He was last seen riding a kilocycle with his friend Eddy Current who was playing a harmonic.

Submitted by Jim Wardman, N9RNL

Call for AARC Historical Documents

Heather Hasper, KL7SP, has taken on the activity of collecting and organizing our Club historical documents. She is looking for AARC documents that you no longer want to maintain in your house. These might include newsletters, membership rosters, flyers, photos, or any other item of historical interest.

Please contact Heather at <u>KL7AA@ADNMAIL.com</u> or via pager at 907-275-7474



KL7AA.org is Out of Service

The KL7G server has suffered hard drive failure. The cluster and web pages are down at this time.

World Ham Population Ratios Pop Out

Pablo Veal (NOAH) on July 28, 2005

On a recent visit by my father in law, F0EFQ, we got to discussing the declining ham population in France. When I compared a ratio of hams to the number of people in his country, it came up to be 2,495 people for every one ham radio operator.

In the U.S.A., that ratio was a lot better at 434:1. What a huge difference. But this U.S.A. number was not close to that of Japan's at 94:1.

Math here is (127,333,000pop/1,350,120hams) That is an amazing number. Putting it into football perspective, if your team were playing a home game with 80,000 fans, you would have over 850 JA operators with only 184 U.S.A. operators in attendance.

Would we even have contests if it were not for the JARL? Who would we work for points? However, it gets even more interesting from here.

Germany has a ratio of 1,044:1 while the U.K. is lower at 954:1. That was a surprise for me but the German ham population is growing well according to Internet research. When I researched my old contest logs, I found DL calls more common than the G's. (Brain jam.)

Spain is at 662:1 while Italy is almost three times this at 1,889:1. When I lived in Wyoming working pile-ups, I thought everyone on the radio was from Italy and I never heard an EA. Hum....

Brazil is 5,744:1 while Argentina is at 1,140:1. I love these operators on 10 meters when band conditions are dead in a contest and all you have is the America's to work. These ratios are great considering you have populations of 184,101,000 and 37,214,800 respectively.

Our neighbor to the north, Canada, had a ratio of 696:1 while Australia was at 825:1. I thought that they would be somewhat closer to that of the United States but they were not too far off. Two big numbers really stood out in digging these numbers up on the Internet. Russia was at 3783:1. I thought the ratio number would be a lot higher due to the developments in the country over the last several years. But Russia is a lot smaller than I thought at only 143,782,300 people. The approximately 38,000 hams are very devoted from my experiences. How many zones do they still cover? -- And with so few hams? I can only see their ratio going down over time.

The last country in my research made me think. I would have to shake hands with over 72,000 people before I had a chance to meet one ham. And this country has around 15,000 operators at their best guess. But with a population of 1,080,264,300, India is a good zone area and country to work on for your 5BWAZ and 5BDXCC.

My statistics were gathered by sites found on Google and attempts were made to find the most recent population census and ham license information provided by third party resources. One other tidbit, I tried to avoid countries that only reported licensed stations versus the number of licensed hams. Many hams operate from club stations in many countries and are not always counted in accurate numbers. Interesting eh?

To sum things up, I believe we need to look at ratios as much as we do the numbers. For example, if someone told you that France had 23,698 hams, you might think that was fine. But compare the U.S.A. ratio to that of France (434:1 versus 2,495:1) and you see France, being a modern industrial country, might have a situation.

Other countries, with high ratios show excellent potential for growth such as Brazil and continued growth in DL.

Using ratio comparisons can be a viable means for modern countries to measure their ham population's health. -- It can also be used by any country to track the growth of its ham population.

Submitted by David Stevens KL7EB AK-SM

For Sale: call Muriel 277 7887

- 1. HF transceiver IC 720 \$180
- 2. Icom Power Supply IC P515 \$50
- 3. Icom IC AT500 Automatic Antenna Tuner \$200
- 4. Katsumi Message Keyer MK 1024 \$50
- 5. Mura CBM20 swr/power meter \$55
- 6. Small Power 12 volt 1.75 amps \$5
- 7. Yaesu FT 208R hand held \$25
- 8. KOSS headphones \$5
- 9. Heathkit HD 1416 code oscillator \$20

The Number of Hams by License Class

Alaska Total = 3211				
US Total = 675274				

David Stevens KL7EB AK-SM



ARES Contact Information

Heather Hasper, KL7SP 747sp@arctic.net Pager: 907-275-7474

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

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

Harold W."Sparks" Hitchen, KL7PG SK

It is with a heavy heart that I report the passing of Harold W."Sparks" Hitchen, KL7PG. He was 89 years old. He died in Palmer last night (Saturday 27 August 2005) after a massive heart attack. Sparks had enjoyed being an Amateur Radio Operator for more than fifty years. He was a member of Quarter Century Wireless Association, and had been active in the Anchorage Amateur Radio Club for many years. Services are pending.

73, Sparks, we will miss you!

Susan / NL7NN

N2CQ QRP CONTEST CALENDAR September 2005

Wake-Up! QRP Sprint (CW) *** QRP Contest *** Sep 03, 0400z to 0600z Rules: http://www.qrp.ru/sprint_e.htm

Michigan QRP Labor Day Sprint (CW) *** QRP CONTEST! ***

Sep 05, 2300z to Sep 06, 0300z Rules: <u>http://www.qsl.net/miqrpclub/contest.html</u>

Adventure Radio Spartan Sprint (CW) *** QRP CONTEST! ***

Sep 06, 0100z to 0300z (First Monday 9 PM EDT) Rules: <u>http://www.arsqrp.com/</u>

Worked All Europe DX Contest (SSB) 100W Power Category

Sep 10, 0000z to Sep 11, 2400z Rules: <u>http://www.darc.de/referate/dx/fedcw.htm</u>

Swiss HTC QRP Sprint (CW) *** QRP Contest *** Sep 10, 1300z to 1900z Rules: <u>http://www.htc.ch/</u>

Second Class Operator Club Marathon (CW) *** QRP Contest *** Sep 10, 1800z to 2400z Rules: http://www.arrl.org/contests/months/sep.html

NA Sprint (CW)... QRP Category Sep 11, 0000z to 0400z Rules: http://www.ncjweb.com/sprintrules.php

End of Summer PSK31 Sprint *** QRP Contest *** Sep 11, 2000z to 2400z Rules: <u>http://www.qrparci.org/contest.htm</u> QRP Afield (All) *** QRP Contest *** Sep 17, 1500z to Sep 18, 0300z (Enter your best 6 hours) Rules: <u>http://www.qsl.net/wq1rp/</u>

Washington State Salmon Run (CW/SSB) ... QRP Category Sep 17, 1600z to Sep 18, 0700z Sep 18, 1600z to Sep 18, 2400z Rules: <u>http://www.wwdxc.org/salmonrun/rules.htm</u>

NA Sprint (SSB)... QRP Category Sep 18, 0000z to 0400z Rules: <u>http://www.ncjweb.com/sprintrules.php</u>

RUN FOR THE BACON (CW) *** QRP CONTEST! *** Sep 19, 0100z to 0300z Rules: <u>http://fpqrp.com</u> [0100z on the Monday after the Third Sunday]

CQWW RTTY DX Contest ... <150w Category Sep 24, 0000z to Sep 25, 2400z Rules: http://www.cq-amateur-radio.com/awards.html

Fall QRP Homebrewer Sprint (CW/PSK31) ***QRP CONTEST*** Sep 26, 0000z to 0400z

Rules: http://www.njgrp.org/data/grphomebrewersprint.html

72 de Ken Newman - N2CQ N2CQ@ARRL.NET

Beam, Tower and Rotor for Sale: Offered as a Package deal for \$850 - call Muriel at 277-7887

1. Hi Gain Telex TH7DX Super Thunderbird Seven Element Beam Antenna – New price = \$799.99 plus shipping (AES pricing)

2. CDE T2X Tailtwister Rotor and Control – New price = \$619.99 plus shipping

3. Wilson MT61B Crank Up Tower – Not sure of height but new price for 40 foot is \$1109.99 and new price for a 55 foot is \$1719.99 plus shipping.

\$800 + 620 + 1110 + 300shipping(or more) = \$2830 You will need to take down the tower and beam yourself.

\$850 is a great bargain if you ever wanted a tower and a beam and a rotor.

Submitted by Neil Thalaker KL7BGZ <u><NThalaker@msn.com></u> 276-7106

Focus on Morse Code

Now that Morse code may no longer be required hams can try Morse code just for the fun of it. No pressure. I though it would be fun to see what articles and notes I could find concerning Morse Code for this month's newsletter. Enjoy. AL7FS

Get Your Feet Wet Weekend 0000Z Sept 16 to 2400z Sep 18

This is from Nancy Kott, WZ8C of the FISTS CW Club (The International Morse Preservation Society)

Despite all the controversy about licensing and requirements, there are a lot of new hams who are intrigued with the code after passing their 5WPM.

But, like we all were (or are!), they are intimidated and nervous about getting on the air. They've had bad experiences on Field Day or other contests and QSO's where people won't QRS (slow down), and they are getting frustrated. We don't want that to happen! We want to encourage and nurture these new CW operators. The Novice RoundUp used to be a good forum for this, but the Novice concept is obsolete. Something needs to be implemented that would include all classes of newcomers and give them a friendly place to learn the ropes. Therefore, "Get Your Feet Wet Weekend" will start 0000Z Sept 16 and run through 2400Z Sept 18. (This coincides with FISTS Anniversary) It is a whole weekend, so DX and everyone will have plenty of time to participate for at least a few hours.

The focus is on sending slowly and clearly and sending the exchange in order. No memory or programmable keyers or code readers are allowed - human-powered transmissions only. Certificates will be sent out to the top three scorers in each category free of charge. For a certificate of participation, please send \$1.

The rules: Operate under one of two categories for the entire event, Newcomer or Experienced. You can be licensed a long time but still be a Newcomer to CW or contesting. You're on the honor system: Choose whichever describes your ability. Suggested calling frequencies: 3.610, 7.110, 14.110, 21.110, and 28.110. If you don't hear anyone, go ahead and call. Get your feet wet and jump in with a CQ FC on a clear frequency. YOU are there listening; chances are someone else is listening and waiting to hear a CQ, too.

Call CQ FC.

The Exchange: Callsign/N (newcomer) or Callsign/E (experienced), RST, Name, QTH, FISTS number or power, last two digits of the year licensed.

Example: WZ8C/E, 599, Nancy, MI, 0379, 88.

Count 2 points for working someone out of your category, 1 point for working someone in your category. Multipliers are number of stations worked that were licensed 2000-2005. Stations may be worked once per band for points, but their multiplier only counts once.

No WARC bands.

Contacts must be 2-way human-keyed CW (Iambics are fine - just no computerized or memory keyers).

Send in your log by 10/30/05 to Lee Hallin N7NU 3413 Walton Ln, Eugene OR 97408 or in ADIF format to hallinl@lanecc.edu

Webpage for FISTS is http://www.FISTS.org/



FISTS ACTIVITIES and CALLING FREQUENCIES

The club has many activities and membership in FISTS is not required to participate, just a love of Morse! All FISTS activities are designed to promote camaraderie among members of the club and help hams hone and improve their Morse skills.

CALLING FREQUENCIES

FISTS members can be found on or near any frequency ending in .x58 (.058, .158, .258, etc)

Here are recommended calling frequencies by band. REMEMBER, these are recommended CALLING frequencies and QSO's should be moved to another frequency.

	10m*	28.058 MHz
	12m	24.918 MHz
	15m*	21.058 MHz
	17m	18.085 MHz
	20m*	14.058 MHz
	30m	10.118 MHz
40m*	7.028 MF	Iz All IARU Regions
40m	7.058 M	Hz IARU Region 2
	80m*	3.558 MHz
	160m*	1.808 MHz
	20m* 30m 7.028 MH 7.058 M 80m*	14.058 MHz 10.118 MHz Iz All IARU Regions Hz IARU Region 2 3.558 MHz

* Note 1: The calling frequencies for 10m, 15m, 20m, 40m - All IARU regions, 80m, and 160m, are only 2 kHz. below QRP calling frequencies (7.030

MHz is the QRP calling frequency in Europe). Please only QSY *down* from these frequencies

Free Morse Code Course

http://www.k7qo.net/index.html

• K7QO's Code Course

On June 28th, 2005 I have had to remove the ISO copy of the K7QO Code Course from my ISP disc space. If you want a copy of the code course:

• Option 1 - send me \$2 (no checks) (two pictures of George Washington will work) and several have done this already with no problems (\$3 if in Canada and \$5 if DX ---- Money Order). I'll do the work of mailer, CD, and postage. Make sure I have your address and or call for qrz.com lookup so that I can check to make sure I have your correct address. A peelable label will speed things up on this end a great deal if you fill it out with your name and address and make sure the gnomes at the post office can read it clearly.

• Option 2 - download from one of the following sites (over 110MB). Left as an exercise for the student on to know how to convert from ISO format. Write course to a CD using Nero or Roxio software from the ISO file.

On July 4th, 2005 a copy of cw.iso, the complete course in ISO format was copied to a site volunteered for this purpose. You can also get the file from the location using BitTorrent. Please do your homework and research what an ISO image is and how your CD burning software can covert it back to a format that your MP3 player can use. Thanks in advance for doing this.

Here is the code course manual first in PDF format. Print it off and use it to work through the course or wait until you get the disc and use it from there.

- <u>K7QO's Code Course Manual</u> Manual is in PDF format. http://www.k7qo.net/manual.pdf
- <u>BitTorrent link to cw.iso file</u> BitTorrent (preferred).

http://www.onjapan.net/ham/k7qo/cw.iso.torrent

- <u>Link to cw.iso file</u> Complete course in ISO format. http://www.onjapan.net/ham/k7qo/cw.iso
- <u>Link to cw.iso file</u> ftp site for cw.iso file in ISO format. This site located in the USofA. ftp://ftp.sysomni.com/ham/k7qo/cw.iso



Morse Code Practice Page

http://www.aa9pw.com/radio/morse.html

This page is designed to help you learn and practice Morse Code. There are also other pages which cover the morse code itself http://www.aa9pw.com/radio/morse_code.html

and a few hints on how to approach learning the code

http://www.aa9pw.com/radio/learn_code.html

This page will generate morse code consisting of groups of random characters and there are 25 characters per group (5 sets of 5 characters). You can pick which group of characters you wish to be tested on: the alphabet, the numbers or punctuation (including prosigns) or all three. The computer creates a .au audio file and sends that to your browser so your browser (or helper application) needs to be capable of handling these files. You will also need a sound card or similar to be able to hear the morse.



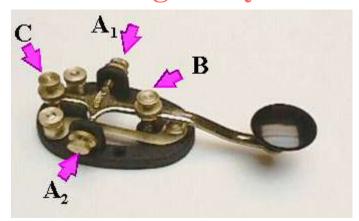
Great Website for Keys and Paddles

http://www.mtechnologies.com/index.html

- Telegraph Keys, Bugs, Paddles, and related telegraphic equipment
- Electronic Keyers, Keyboards, and Keyer-Paddles
- Electronic Kits (many are also available assembled)
- Oak Hills Research QRP transceivers and accessories, kits or built
- Electronic Parts and Components
- AMECO Keys, Oscillators, Filters, Preamps, Code Training
- Hand Tools, Soldering Equipment, Test Equipment
- Morse Code Training, and Logging Software
- Books and other publications on a variety of Morse related topics not otherwise classifiable, e.g. tuners & key jewelry

Adjusting Straight Keys & Paddles

A "How-To" Article by <u>N1FN</u> Marshall G. Emm <u>http://www.mtechnologies.com/index.html</u> Straight Keys



The example shown is a <u>Nye Speed-X Model 312</u>, which is typical of a great number of straight keys. Click picture for larger view.

The available adjustments are:

Arm Tension, the force needed to move the lever up and down. It's usually exerted by a coil spring between the arm and the base, and is adjusted at **B** in the drawing.

Bearing Tension, the setting of the pivot bearings on which the arm rotates. It is controlled by the pressure on the bearing surfaces, and there is one bearing (and one adjustment) on each side of the pivot arm, shown at A_1 and A_2 in the drawing.

Contact Spacing, the space between the two electrical contacts when the key arm is not depressed (unkeyed). The contacts are located beneath the arm, toward the front of the key. The adjustment for the 312 and similar keys is at the back end of the arm, shown as C in the drawing.

The two unmarked screws at the back of the key, on either side of C, are the binding posts for connecting the key to the transmitter.

Here are the four steps you will need to "set up" your key:

1. <u>UN</u>-adjust the key. That's right- we need to loosen everything up and get to a common starting

point, because each of the adjustments has some impact on the others. Loosen the spring tension on the arm (B) until no resistance is felt when you depress the knob. Open the contact spacing (C) as far as you can without removing the adjustment screw from the arm. Loosen the bearing tension screws (A) until the arm wobbles loosely.

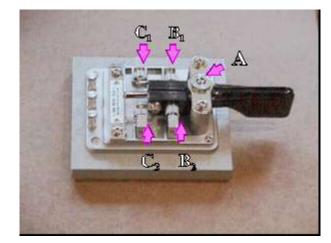
2. Adjust the bearing tension. Choose one of the two bearings and tighten its adjustment screw (A) until you can just barely feel a bit of friction as you move the arm up and down. Now back the screw off until *just* the point at which the arm moves freely again- usually it's just a fraction of a degree of screw rotation, or about as fine an adjustment as you can make. Repeat with the other bearing tension adjustment screw. Setting the second bearing is likely to have had some effect on the first, so readjust the first bearing and then finally the second bearing. At this point the arm should move up and down perfectly freely, with no sideways play or "slop."

3. Adjust the contact spacing. The contact spacing determines the amount of vertical movement when you depress the arm. It's entirely a matter of taste, but if you haven't used a key before and haven't developed your own preferences, start with a sixteenth of an inch or about the thickness of a penny. Adjust screw (C) until you have the desired spacing between the contacts.

4. **Adjust the arm tension**. Tighten the arm tension adjustment screw (B) to a comfortable level of tension on the arm. Again, this is a matter of preference, but it is possible to suggest a good rule of thumb if you haven't developed preferences- set it for the minimum amount of tension that will allow you to feel that you are in control of the key.

Paddles

A dual paddle is a little more complex than a straight key, but it can be thought of as two straight keys side by side and operating horizontally rather than vertically. There are also single paddles, but there is very little difference in the way they are adjusted.



The example shown is a <u>Hi-Mound Model MK-706</u>, which is typical of a great number of dual paddles. Click picture for larger view. The available adjustments are:

Lever Tension, the force needed to move either of the two levers from side to side. It's usually exerted by a coil spring between the paddle lever and the adjusting screw, and is adjusted at **B** in the drawing. Some paddles will have separate adjustments for each lever. Note that paddles like the "Bencher" have the tension controlled by a single long spring running around a post at the back of the unit. The two screws to which the spring is attached control the tension by changing the angle at which the spring pulls.

Bearing Tension, the setting of the pivot bearings on which the paddles rotate. It is controlled by the pressure on the bearing surfaces. In the paddle shown, there is a single adjustment at the center of the bearing frame, shown at **A** in the drawing. Some paddles will have separate adjustments for the two arm pivot bearings, and some paddles will even have separate adjustments for the upper and lower bearing surfaces.

Contact Spacing, the space between the two pairs of electrical contacts when the levers are at rest (unkeyed). The contacts on the 706 are located at the rear end of the lever. The adjustments for the two arms are shown as **C** in the drawing.

Here are the steps you will need to "set up" your paddle

1. <u>Un</u>-adjust the paddle. That's right- we need to loosen everything up and get to a common starting point, because each of the adjustments has some impact on the others. Loosen the spring tension on

the paddle levers (B) until no resistance is felt when move the levers. Open the contact spacing on each side (C) as far as you can without removing the adjustment screw from the arm. Loosen the bearing tension screw (A) until the arms wobble loosely.

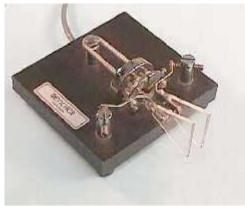
2. Adjust the bearing tension. Tighten the bearing tension adjustment screw (A) until you can just barely feel a bit of friction as you move the levers back and forth. Now back the screw off until *just* the point at which the arms move freely again-usually it's just a fraction of a degree of screw rotation, or about as fine an adjustment as you can make. If the arms have separate bearing adjustments, perform this adjustment for each arm individually. At this point the two levers should move from side to side freely, with no vertical play or "slop"

3. Adjust the contact spacing. The contact spacing determines the amount of horizontal movement when you depress the arm. It's entirely a matter of taste, but if you haven't used a paddle before and haven't developed your own preferences, start with about the thickness of a dime or a bit less. Adjust screws (C) until you have the desired spacing between the contacts on each side. The spacing does not have to be identical, and in fact many "bug" operators prefer a greater gap on the dash paddle.

4. Adjust the arm tension. Tighten the arm tension adjustment screws (B) to a comfortable level of tension on the arm. Again, this is a matter of preference, but the general rule is to set it for the minimum amount of tension that will allow you to feel that you are in control of the paddle. There is no reason the tension should be the same if you don't want it that way. For example, if you have never used a paddle before you may find it easier to learn if tension is set slightly greater on one side or the other.

Bencher Paddles

The popular Bencher line of paddles poses some interesting problems in adjustment, because the design is so different from more traditional straightlever paddles. The Bencher uses a "cantilever" arm design, so that the contacts are at the front of the paddle and the movement of the contacts is essentially from back to front rather than from side to side. This design, coupled with the distinctive shape of the finger-pieces, is why the term "Iambic" is so often associated with the design of the paddle. But in fact, the Bencher is a simply a variation on the theme of *dual paddles*, and *Iambic refers only to the keyer* with which the paddle is used. <u>Click here for a discussion of iambic paddles and keyers</u>.



Bencher BY-1 Paddle

Adjustment of a Bencher or other cantilever style paddle is not as difficult as it looks. While the appearance is technically daunting, the Bencher is actually quite robust, and capable of adjustment in the usual ways to suit any operating style.

Naming of Parts

The parts of the Bencher need to be understood before an attempt is made to adjust the paddle. Critical parts or adjustment screws are indicated in the <u>illustrations</u>.

The two paddle arms are the S shaped pieces of metal which have the plastic finger-piece at the front and a contact at the other end, adjacent to the two contact posts. The paddle arm is attached to the semi-circular pivot plates with a single screw which goes through the arm, and extends beyond the pivot plate to rest against the stop screw.

The pivot plate rocks back and forth as the paddle is used, and adjustment consists of locating the pivot plate properly and controlling the extent of its movement. As stated, the paddle arm is attached to the front of the pivot plate with a screw that goes through the plate and controls the resting position of the plate when it is under tension from the spring. The spring attaches to a long screw that goes through the pivot plate from the upper quadrant. There is a flat spot in the threading of the screw (on the inner side of the pivot plate), where the end of the spring is attached. As the screw is moved in or out, the amount of tension is changed as the angle between the spring and the pivot plate changes. The plate moves against two needle bearings (upper and lower on each side) with the needle bearings themselves extending forward from the bearing block and the nylon bearing seat fixed in the back side of the pivot plate.

There is also a "locator" screw which goes through a large, unthreaded hole in the pivot plate and screws into the bearing block. The locator screw is not actually attached to the pivot plate. The head of this screw limits the distance that the plate can move outwards if the paddle arm is moved the "wrong way." In normal use it serves no purpose, but when the arms are moved backwards (e.g. to clean the contacts) it does serve to keep the pivot plate from coming off the bearings.

The available adjustments are:

Paddle Arm Tension, the force needed to move either of the two levers from side to side. It's exerted by a long coil spring which attaches to one adjustment screw, goes to the back of the paddle and around a post, and then back up to the other adjustment screw. The two screws to which the spring is attached control the tension by changing the angle at which the spring pulls against the pivot plate.

Bearing Tension, adjustable only as a side-effect of varying the spring tension on the pivot plate. With needle bearings and nylon seats, it is essentially ignorable.

Contact Spacing, the space between the two pairs of electrical contacts when the levers are at rest (unkeyed). The contacts on the Bencher are an adjustable contact on the end of a screw going through the contact post, and a fixed contact on the end of the paddle arm. The contact spacing determines the distance the paddle arm will move when keyed.

Pivot Plate Position, the location of the pivot plate. There is really only one adjustment, namely the resting position (paddle unkeyed) controlled by

the stop screw. The locator screw limits outward movement of the pivot plate when the paddle arm is moved "backwards."

Here are the steps you will need to "set up" your Bencher paddle

1. **Open up the contacts**. Loosen the transverse locking screw (the smaller, upper one) on each contact post and then back out the contact screw until the contact itself is up against the inner surface of the post.

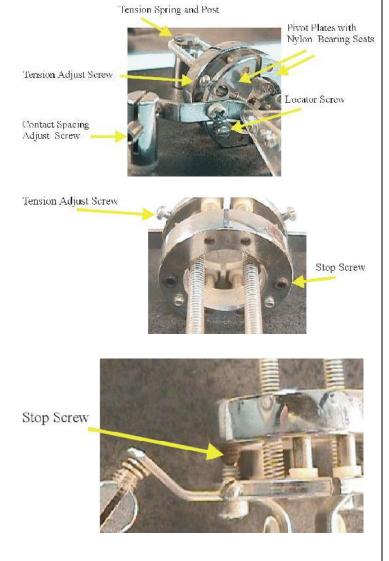
2. **Inspect and adjust the position of the pivot plates**. They should be perfectly parallel with the front surface of the bearing block. Looking from the side of the paddle, you should see that the tops of the pivot plates form a straight line, parallel with the bearing block. If they don't, adjust the stop screws (accessible from the back of the bearing block) until the plates line up. When the above adjustment has been made, check the locator screw to see that the head is approximately 1/8" out from the front of the pivot plate.

3. Adjust the contact spacing. The contact spacing determines the amount of horizontal movement when you move the finger-piece or "key" the paddle. It's entirely a matter of taste, but if you haven't used a paddle before and haven't developed your own preferences, start with about the thickness of a dime or a bit less. Adjust the contact screws until you have the desired spacing between the contacts on each side, then tighten the locking screws above the contact adjustment screws. The spacing does not have to be identical, and in fact many former "bug" operators prefer a greater gap on the dash paddle.

4. **Inspect contact alignment**. When keyed, the contacts should meet flush and not at an angle. If they do not meet flush, you can usually fix the problem by loosening the nut that holds the contact post (on the base of the paddle) and rotating the post slightly. If you cannot achieve a flush meeting of the contacts after performing ALL of the preceding adjustments, then it is probably that the paddle arm has been bent. If you find it necessary to straighten the paddle arm, remove it from the pivot plate and hold it firmly with a pair of pliers (or in a vice) and bend as

necessary. You can also bend other (front) end of the paddle arm if you want to make a slight adjustment in how close together the finger-pieces are.

5. Adjust the arm tension. Adjust the tension adjustment screws to a comfortable level of tension on the arm. Again, this is a matter of preference, but the general rule is to set it for the minimum amount of tension that will allow you to feel that you are in control of the paddle. There is no reason the tension should be the same if you don't want it that way. For example, if you have never used a paddle before you may find it easier to learn if tension is set slightly greater on one side or the other. It will be pretty obvious, but tension is increased by turning the adjustment screw out (counterclockwise), and decreased by turning it in (clockwise).



On Iambic Paddles and Keyers by <u>N1FN</u>

To begin at the beginning, *there is no such thing as an iambic paddle*! The confusion came about in large part because the Bencher "Iambic Keyer Paddle," as it was labeled in magazine ads, was introduced shortly after the iambic keyer itself was developed, and similar names have been used by other paddle manufacturers. Many people tend to read "Iambic Keyer" as a description of the paddle rather than the device for which it was designed to be used, the "iambic" electronic keyer.

Early electrical and electronic keyers were an emulation of mechanical keying devices such as bugs, where you would press a lever in one direction to get a series of dots, and the other direction to get a series of dashes (or make them manually in the case of a *semi*-automatic key, or bug). The first keying devices, or paddles, had a single lever and were known variously as sideswipers, slap-keys, and paddles. All electronic keyers work this way, but a more recent development (mid 1950's) is the iambic or "squeeze keyer" which adds a level of functionality to the basic "dit OR dah" scenario.

With an iambic keyer, you get an *alternating series of dots and dashes* when both levers are activated at same time, or squeezed.

The term "Iambic" comes from poetry, where it is used to describe a rhythm consisting of alternating unstressed and stressed syllables, as for example "Come *live* with *me* and *be* my *love*!" When you say that out loud you will easily hear the "di-dah-didah-di-dah-di-dah" rhythm, or in other words the rhythm you get when you "squeeze" the paddles connected to an iambic keyer. The series can start with either a dit or a dah, depending on which lever makes contact first. If the electronics in the keyer cannot determine which contact hit first (logically simultaneous), it will default to starting with either a dit or a dah and then begin alternating. Just for the sake of being complete here, if you squeeze the paddles so as to get "dah-di-dah-di-dah-dit" the rhythm is technically "trochaic" rather than "iambic," but that's trivia you probably don't need to know.

Dual paddles like the Bencher can be used with "non-Iambic" keyers, and single lever paddles can

be used with Iambic keyers (although the true iambic or squeeze-key features of course are unavailable with a single lever paddle). The confusion came about because the Bencher "Iambic Keyer Paddle," as it was labeled in magazine ads, was introduced shortly after the iambic keyer itself became popular, and many people tend to read "Iambic Keyer" as a description of the paddle rather than the device for which it was designed to be used.

If you have time, download Iambic Keying -Debunking the Myth. It is interesting to see just how good iambic is or is supposed to be compared to non-iambic.

http://www.morsex.com/pubs/iambicmyth.pdf

Antenna Launching for Serious Practitioners

By Russ Carpenter, AA7QU The ARS Sojourner (used with permission)

Over the years, I've been developing a negative relationship with trees. I'm all in favor of trees when they mind their own business in forests. It's when they purport to serve as antenna support structures that things fall apart.

Trees are determined to snag and eat my antenna lines. It's one thing to say "let's just toss a line in a tree." It's another to face the reality of an unruly, uncooperative line-eating creature.

In truth, slingshots share the blame. I know the world contains some sling shot artists who can cast their lines over trees in a hassle-free manner. I admire them, but I don't appear to have their innate slingshot competency. In the past, my attempts at sling shotting have been good for horse laughs, and little else.

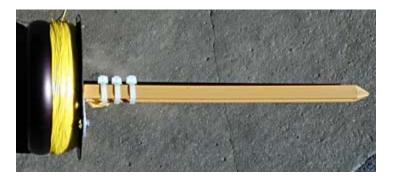
There is now some cause for hope. In an effort to improve my antenna launching, I've recently been experimenting with a bow and "fish arrow" combination. It certainly gets the line up there about 100 feet high when everything works right. However, unless you are already an archery sort of person, the bow and arrow solution may be too complicated and expensive. But the bow experiment uncovered a nifty little device call a "Retract-O-Blade Drum Reel." It's intended for bow fishermen, and can be purchased or ordered at any archery store (for about nine bucks). You might call it the world's most simple spinning reel. The drum reel turns out to be a powerful problem solver for sling shots. (Here is an on-line store for the drum reel:

http://www.archeryexchange.com/products/bowfish
ing/BWF-113.shtml)

In my experience, the real problem with sling shots is that they are generally coupled with a device known as a "closed-face spinning reel." The anglers among you will already know that they are useless. They are true pieces of junk, which add tons of friction to the fishing line.

What the sling shot crowd really needs is an open faced spinning reel with a very large spool and break-proof mechanics. In addition, it needs to throw away the kinky monofilament line that is normally installed on spinning reels and replace it with a non-twisty, high tech braided line.

Aha! I have just described a Retract-O-Blade Drum Reel, loaded with silicon-coated braided polyethylene line. Here is what the secret weapon looks like. (Nylon ties have been used to attach the mounting bolt of the drum reel to a plastic tent stake.)



The line is wonderful stuff, called "Ripcord Si." You can buy it on the Cabela's web site. (<u>http://www.cabelas.com</u>) I suggest the yellow color and the 150 yard spool, This line is 50 pound test, skinny, easy to see, and slippery as all get out. 300 feet of it can fit on the spool.

Here is the contraption ready for action. The sling shotter stands slightly in front of the apparatus,

making sure that the line is coming freely off the spool before he lets loose.



The line peels off the spool smooth as silk. I know the day will come when my line will get stuck in a tree, but it hasn't happened yet. Ripcord is so slippery that it just slithers through the branches, even with a small sinker.

Don't use ordinary knots with Ripcord—they won't work. Here's a good one called the Palomar, It is easy to tie and works every time.



With a run of the mill slingshot, my shots are going about 80 ft high. Best of all, there are no tangles, jams, or hassles. I'm a happy person, and my relationship with trees is improving. ****

Russ Carpenter, AA7QU, is co-founder of Adventure Radio Society. Russ at natworld.com



Election actions are running a bit late. But with luck, we will present a slate of candidates for board members next Friday. If not, we will be running a month late. If uld like to run for the Board contact Fielder

you would like to run for the Board, contact Fielder at Fgdowding at iceworm-enterprises.net al7fs

There is an Important Vote at the September 2nd AARC meeting. Please attend and help approve the final Articles and Bylaws of the Anchorage Amateur Radio Club.

The AARC Board of Directors had determined that there are organizational advantages for us to convert from a 501(c)7 non-profit organization to a 501(c)3. After a lengthy process it was determined that we do not qualify. As a result, there are minor editing changes that need to be done to our Article and Bylaws previously approved to eliminate 501(c)3 references and retain our 501(c)7 standing. Our Attorney has provided the revisions. The board has approved these proposal documents for presentation to the membership.

This is not a vote on the content of the Articles and Bylaws previously approved. This vote only seeks approval to update the references to our 501(c)7 non-profit status as well as a few minor administrative corrections.

The second change to the Bylaws is a new Article. We have a dedicated fund for the emergency communications command program. This separate segregated account may be used only for expenses related to the operation, maintenance, storage, and replacement of the program equipment, including but not limited to the command vehicle, trailers, towers, computers, repeaters and the like. If our income should ever drop, these funds will help us to carry forward our programs. The text of the Article is clear. Our attorney strongly recommended and urged us to add this to our Bylaws. It represents our good faith and intentions to the State of Alaska in this matter. The board has approved this document for presentation to the membership.

This is a vote on the entire content of the Article.

We sincerely ask for your support in approving these changes at the September 2nd meeting.

These documents form the legal basis for our organization.

Jim Larsen, AL7FS



Data You Can Use:

Officers

Gillettis			
Jim Larsen, AL7FS jimlarsen2002 at alaska.net			
Judi Ramage, WL7DX damage at gci.net			
Fielder George Dowding KL7FHX			
Fgdowding at iceworm-enterprises.net			
Heather Hasper, KL7SP, kl7aa at adnmail.com			
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kl1rk at yahoo.com			
Editor Jim Larsen, AL7FS			
Membership Chairman Fred Erickson KL7FE			
frederickson at iname.com			
Jim Larsen, AL7FS jimlarsen2002 at alaska.net			

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AARC web page & Email contact addresses:

Homepage:http://www.KL7AA.org/Webmaster:AL1G_ak (at) yahoo.comPresident:JimLarsen2002 (at) alaska.netVice President:damage (at) gci.netMembership:Frederickson (at) iname.comNewsletter:JimLarsen2002 (at) alaska.net

News Letter Submissions, Information or corrections:

Submissions must be received 2 weeks before meeting Email: JimLarsen2002 (at) alaska.net Mail: 3445 Spinnaker Drive, Anchorage 99516

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-a/o Mar05 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 **443.3/448.3, 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

VE Testing in the Valley

Valley VE testing sessions will be held at the Wasilla Red Cross at 7 pm on the fourth Saturday of each month unless it is a major holiday weekend. The address is 262 E Nelson St in Wasilla. Nelson Street is the extension of Bogard to the west from Main Street/Wasilla Fishhook, and the Red Cross is on the south side of Nelson about halfway from Main to Lucille. (eff. 9.25.04)

Internet Links, the favorites from our readers:

QRP and Hombrew Links http://www.AL7FS.us 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 Practice Exams : http://www.AA9PW.com/ Fairbanks AARC: http://www.kl7kc.com/ Yukon Amateur Radio Association: http://www.klondike.com/yara/index.html Links for Homebrewers & QRPers http://www.amqrp.org/misc/links.html Solar Terrestrial Activity http://209.130.27.95/solar/ ARRL http://www.arrl.org/ Propagation Report Recording 566-1819

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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.

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 at 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, 10:00 AM: Brunch NW corner of Debarr and Bragaw. 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

 1^{st} 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 147.67repeater.

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 TJ Sheffield – KL7TS: kl7ts at arrl.net HM: 248-3864 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 at 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 Or pay membership renewals?

Fred Erickson KL7FE 12531 Alpine Dr Anchorage, AK 99516-3121 frederickson (at) iname.com Phone number: 345-2181

Annual Dues are \$12 (prorated as appropriate) Additional Member in same household is \$6 Full Time Student is no charge Ask about Life Memberships The Anchorage Amateur Radio Club News

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