Anchorage Amateur Radio Club

Next Meeting December 3rd, 7:00 PM

December Program

DECEMBER MEETING: *There will be a Christmas party and a Chinese gift exchange at the club meeting on December 1st. Gifts under $25 are appropriate.*

Club Business

Common Coaxial Connectors

Many coaxial connector types are available in the audio, video, digital, RF and microwave industries, each designed for a specific purpose and application. Much of the development of the smaller connectors that perform well into the GHz and millimeter wave range has been conducted by test equipment measurement companies. One of their considerations is the number of connect-disconnect cycles that a connector pair can withstand while still performing as expected.

Sex and Connectors

Those unaccustomed to the use of the terms "male" and "female" to describe connectors will have to get used to this time-honored engineering nomenclature. Those of us who work with them regularly use the terminology without a second thought. One day a few years back, my daughter (who was about 8 years old at the time, if memory serves) was in the lab with me while I was working at the network analyzer with one of the grad students. She overheard our conversation, peppered as it was with the terms "male connector" and "female connector". After we were done, she asked me why the connectors were named that way. Well, this was a conversation I had expected to have in somewhat different circumstances, but I gave her a quick summary of the "how-babies-get-made" story, followed by the analogy that is implied by the connector terminology. She thought about it for a few moments when I was done, and then said, "Daddy, that's just weird." It's hard to argue with that.

Connecting and Disconnecting

RF and microwave connectors are precision-made parts, and can be easily damaged by mistreatment. You should start with all connector surfaces as clean as possible, using a solvent such as alcohol or a special-purpose cleaner to do the job. Use as little as you can, and in no event contact dielectric spacers or resistive materials (as used in loads) with the solvent, since these can be irreparably damaged by the solvent. As a general rule, if the connectors have threaded sleeves, you should rotate these to tighten, leaving the rest of the connector (and cable) stationary. If other parts of the connector are twisted while tightening or loosening, damage can easily occur.

RED CROSS BACKGROUND INVESTIGATIONS

The American Red Cross (ARC) has attempted to clarify its policy to require background checks of its employees and volunteers, at least as far as the policy applies to possible credit checks. After the ARC announced the policy in July through regional and local chapters, Amateur Radio Emergency Service (ARES) members who support Red Cross disaster relief and recovery efforts began expressing concerns to ARRL. In some past incidents -- most notably the 2001 World Trade Center terror attacks and the 2005 Hurricane Katrina response -- ARES volunteers have had to badge in as Red Cross volunteers. In a statement to the ARRL November 9, Laura Howe, the ARC's director of response communication and marketing, stressed that, while background check applicants must give permission to conduct a credit check, the ARC has no intention of conducting them across the board.

"The Red Cross realizes some volunteers may have concerns about authorizing a credit check. Those concerns are understandable," Howe said. "But please rest assured that credit checks are only run in rare instances and are not a part of the routine minimum basic check the Red Cross performs on employees or volunteers."

Howe told the League that the 2005 hurricane season exposed her organization's weakness in the area of background checks, "as evidenced by publicized examples of fraud and waste." The "standard minimum check," she said, verifies the applicant's Social Security number and a search of the National Criminal File for the past seven years.

American Red Cross of Alaska
alaska.redcross.org

"While the Red Cross will never run a credit check on the vast majority of its employees and volunteers," she asserted, "it is important that this standard language is included in the consent form to protect our clients, volunteers and employees." Volunteers with questions about whether a chapter might need to delve further into an applicant's background should check with the unit administrator, she said.

Cont. page: 7

An Easy to Install Vertical Loop for 80-6 Meters

by John Reisenauer, Jr. KL7JR

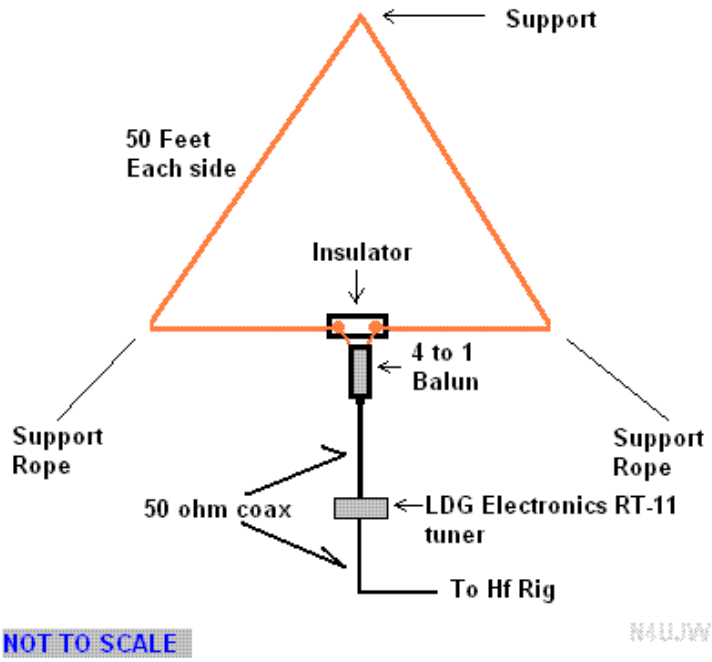
A previous loop article by Steve Ford, WB8IMY (May 2002 QST,

"One Stealthy Delta") caught my attention, especially because I've had such favorable results with other loops I've experimented with in the past.

I wanted an "easy to install" loop for my portable island operations. One that was "long" enough for 80 meter work. I did modify Steve's design a bit to more fit my needs (i.e.- longer antenna since I'd usually have the real estate on portable outings and I wanted my tuner closer to the rig.)

My portable loop is 150 feet long (50 ft per side) and includes a 4:1 balun at the feed point midway on the horizontal side. A short run of RG-8X coax was all I needed to reach my permanently installed tuner in my motor home (it probably would have been better using a minimum coax length of 50 feet?).

The loop only took a few hours to make and the cost was about $20 for wire (I used #12 solid insulated house wire left over from another project and scrap PVC pipe for the insulators). Schedule 40 PVC pipe and fittings along with solid insulated wire work better in cold temperatures according to my experience.



Picture a triangle with one pointed end up for the apex and the feed point in the center of the bottom horizontal portion of the loop. It doesn't get much simpler than this. For those of us who like to know how many wavelengths make up this 150 feet long loop (1005 divided by frequency in MHz):

28MHz (4.3 wl), 24 MHz (3.7 wl), 21 MHz (3.2 wl), 18 MHz (2.7 wl), 14 MHz (2.1 wl), 10 MHz (1.5 wl), 7 MHz (1 wl) and 3.5 MHz (.5 wl).

On a long March, 2003 weekend outing, It took me about 2 hours to set up the antenna, mostly because of the irregular shaped campsite I was using with respect to tree spacing and wire always tangles up when I'm around!

I was only able to get the loop apex up about 30 feet (higher is better) and one end of antenna was at 12 feet off the ground and the other was about 6 feet, with the feed point about 7 feet "sloped" away from the apex and bent in one direction (I made the antenna fit the lot).

At a height of 40 feet or higher, the antenna would more resemble a delta loop no doubt! I was confident this "sloping loop" would work fine even though it deviated a bit from the original design of three sides at 40 feet long each and didn't turn out looking exactly like a triangle.

The loop loaded easily on all bands 10-80 meters with my new LDG Electronics RT-11 tuner and old FT-840 transceiver. It may even have loaded on 160 meters but I forgot to try. I don't have 6 meter capability (yet!) so will take Steve's word that it loads on that band as well.

My results were: 15m K4, 17m JA and K0, 20m KL7, K2-K8, UR4 and VE3, 40M K6 and K7, 80M K6 and K7. There just wasn't a lot of DX on, but I managed to work most every station I called.

I also installed my old Hustler 5 BTV vertical to compare with the loop on receive. I knew what the 5BTV could do and wanted to see if the two antennas differed much.

Since my motor home roof is metal, I put the 5BTVs feed point at about 6 inches above the roof for a ground plane effect to avoid installing elevated ground radials or to ground mount it creating a safety hazard. (Close encounters with park rangers can make for short camping trips)!

It only took about 15 minutes to install the 5BTV. (Note: both antennas were mostly pre-assembled to save time in the field). Both the loop and 5BTV received about the same on 80-15 meters in "side-by-side" comparisons throughout the 3 day test. Ten meters was dead each time I checked, so I concentrated on the lower bands.

I worked almost the same call areas on the 5BTV as with the loop. On a few occasions, the 5BTV was one to two "s" units better on 20m while the loop was also one to two "s" units stronger a few times on 80m. I'm sure horizontal to vertical (and vice-versa) polarization characteristics between the other station's antennas and my antennas had much to do with it. For the most part, both the loop and 5BTV were pretty much even on receive. On a second outing a few weeks later, the bands were more favorable allowing me to work a lot of DX on 17, 40 and 80 meters including KL7, KH6, H44, J88, TG9, JR3, PP5 and others plus many stateside contacts with the loop. I was particularly amazed by band conditions on 17 meters and how easy it was to break big pileups! The loop went up a lot faster too at a more "antenna friendly" camp site!

In conclusion, I was satisfied with the results of my efforts experimenting with both antennas. For long-duration portable outings, or fixed station use (if you have the room), I'd go with the loop antenna simply due to the economics ($20 for wire vs. about $150 and up for a commercially made multi-band vertical) and because I'm partial to homebrew wire loop antennas. I highly recommend you read Steve's well prepared article mentioned at the beginning. It laid the ground work for my experimenting.
His Original article link by Steve Ford, WB8IMY (May 2002 QST, "One Stealthy Delta") is below:

www.sqcworld.com/Publications/Articles/237qst0502.pdf

73 John ~ KL7JR

Mt. Susitna Intermodulation

Intermodulation or **intermod** as it is better known as, is the result of two signals of different frequencies being mixed together, forming additional signals at frequencies that are not in general at harmonic frequencies (integer multiples) of either. The largest intermodulation products appear at $f_1 + f_2$ or $f_1 - f_2$ (second-order intermodulation), and less so at $2f_1 - f_2$ or $2f_2 - f_1$ (third order intermodulation).

Mt. Susitna hilltop and repeater location.

The cause for intermodulation is the existence of non-linear characteristics of the according equipment. The theoretical outcome of these nonlinearities can be calculated by conducting a Volterra series of the characteristic, while the usual approximation of those nonlinearities is obtained by conducting a Taylor series. According to the summands in those series, the above numbering of orders is counted. Intermodulation is rarely desirable in radio, as it essentially creates spurious emissions, which can create minor to severe interference to other operations on the resulting frequency (See the Rusty bolt effect for more details).
It may be desirable in audio if the intent is to create specific sound effects; for instance, intermodulation is the basis of the power chord technique in rock music.
What does "nonlinear" mean? It means that the output voltage does not follow the input voltage perfectly. Nonlinear circuits can generate harmonics and mix signal frequencies. The RF amplifier or mixer circuits in a receiver can be somewhat nonlinear, creating additional signals from the desired signal--and perhaps others--present at the nonlinear stage
In a perfect world, every amplifier would amplify signals without distortion, every mixer would convert RF signals to the IF perfectly, and a radio would hear only the desired signal. In the real world, however, all of these processes are nonlinear to some degree. This results in the creation of interference.

KL7AA Club Business

ELECTION RESULTS

The Election is completed. Our new club Board of Directors and Officers has been determined.

OFFICERS: 2007

President Elect: Kathleen O'Keefe, KL7KO (2 year)
Vice President Elect: James Larsen, AL7FS (2 year)
Secretary Elect: Diane Olson, KL1MY (2 year)
Treasurer Elect: Heather Hasper, KL7SP (2 year)
Activities Manager: Patrick Wilke, WL7JA (1 year)

Board of Directors:

3 Year Board: Michael O'Keefe, KL7MD (3 Year)

1 Year Board of Directors:

TJ Sheffield	KL7TS
Judi Ramage	WL7DX
John Orello	KL7LL
Richard Kotsch	WL7CPX
Edward Moses	KL1KL
Richard Block	KL7RLB
Nick Cassler	KL1XD
Susan Woods	NL7NN

No Past President position due to Jim Larsen running for Vice President.

2007 BUDGET

The budget has been approved by the general membership as required by the By-Laws. The budget includes several capital projects and asset acquisitions that were approved by the general membership at the November 2006 meeting.

Board Meeting Minutes

ANCHORAGE AMATEUR RADIO CLUB
BOARD MEETING
OCTOBER 17, 2006
540 WEST INTERNATIONAL ROAD
(Unapproved at time of printing)

The meeting was called to order at 7:02 PM by President Jim Larsen A quorum was established

BOARD MEMBERS PRESENT: President Jim Larsen, AL7FS, Treasurer, Heather Hasper, KL7SP, Secretary Diane Olson, KL1MY, Kathleen O'Keefe, KL7KO, Michael O'Keefe, KL7MD, Frank Pratt, KL7RX, Jim Wiley, KL7CC, Steve Jensen, KL0VZ, Art Morton, AL0U and Ed Moses, KL1KL

NON-VOTING MEMBERS PRESENT: Trustee, Keith Clark, KL7MM and Gaming Member In-Charge, John Lynn, KL7CY

EXCUSED: Vice-President, Judy Ramage, WL7DX, Richard Kotsch, WL7CPX and Paul Spatzek, WL7BF

UNEXCUSED: T.J. Sheffield, KL7TS and Nick Casler, KL1XD

GUESTS: Susan Woods, NL7NN and Ron Keech, KL1PL

SECRETARY REPORT

September minutes were not prepared and are scheduled to be voted on-line for approval.

TREASURER'S REPORT

Grants were discussed to ensure they are included. $21,953.00 must be spent before the end of the year. Budget for 2007 and 2008 were presented. Changes to line items for 2007 included: Repeaters & antennas increase to $300.00 per month. Art Morton made the motion to increase the line items. Steve Jensen seconded. Motion passed unanimously. Printing and Office Supplies for June only be increased to $300.00. Art Morton made the motion and Steve Jensen seconded. Motion passed unanimously. For the 2008 budget the same changes were proposed. Jim Wiley made the motion for both line items to increase the same, Steve Jensen seconded. Motion passed unanimously.

OLD BUSINESS

Major Convention 2008- tabled

Fur Rondy Tracking Board – Susan Woods to talk with Tom Ramsey to see how the dog track folks can assist.

Grubstake Repeater – UHF side not working Scheduled to be delivered within 4 to 8 weeks.

Board Meeting Minutes cont.

NWS Installation Agreement – Equipment has been ordered. Radios are here. All NWS needs is to be licensed. This is also Steve's last meeting. Mike O'Keefe offered to be the champion for this cause.

Tech Committee
Capital Plan – 2006 – tabled until further in the meeting.

Storage Issues – briefly discussed

Disposal of AARC property – need letters for all donations and a guideline. Kathleen O'Keefe made a motion to accept a working draft initially created by Jim Feaster and make revisions as appropriate. Michael O'Keefe seconded. Also discussed eBay and talking with the accountant for approval of property disposal.

Long term plans for a club facility – tabled for another meeting

Spares for Repeaters for Grubstake – tabled for later in meeting

CCV Security System – Active and in place, see Bruce McCormick for instructions and Jim Larsen for permission to be added to the list of individuals allowed access into the CCV facility

Break from 8:00PM to 8:10 PM

NEW BUSINESS
Election Committee – need to incorporate and keep membership lists up to date

Program for November Meeting – no program

Approvals for KL7AA – use for Field Day in November at November Sweeps

Grants –

- EARS $2,050.00 Jim Wiley made a motion to approve this grant. Michael O'Keefe seconded it (Ron Keech, KL1PL received a check at the meeting)
- Alaska Search and Rescue Dogs $7406.00,
- Hope Community Resources $10,000.00.

These grants were lumped together by Steve Jensen who made the motion to approve these grant proposals. Michael O'Keefe seconded the motion. Both grant requests were voted on and passed unanimously. This information is now to be taken to the general membership for approval.

CAPITAL PROJECTS – Jim Larsen presented a list of line items. Each was discussed individually. These items were presented by the Technical Committee for future consideration for the Capital Improvement Projects 2007.

The following item was not approved to take be kept in the concept plan: purchase of a Trailer Tug. Michael O'Keefe pointed out these particular pieces of equipment do not work in the situation the technical committee hoped they would.

The following line items were approved in concept by the Board of Directors; these items are as presented by the technical committee:

- Backpack Portable Repeater VHF, $2.000.00
- Backpack Portable Repeater UHF, $2,000.00
- ATV Backpack Video Relay, $2,000.00
- Wide area APRS Digipeaters - $4,400.00
- Wide area Packet Digipeaters, $4,400.00
- Weather Port Tent Trailer, $8,000.00
- Map Collection, $500.00
- Cross-bander Range Extender systems, $6,000.00
- Upgrade VHF Repeater at Rabbit Creek - Kenwood, $4,000.00
- Upgrade 220 Repeater at Rabbit Creek - Hi-Pro, $4,000.00
- Upgrade UFH Repeater at Rabbit Creek – Kenwood, $4,000.00
- Intercom system for Radio Operations, $1,500.00
- Replacement Dual Band Antennas for Comm Vehicle, $800.00
- Weather port Partition with Door, $900.00
- Radio direction Finding System for RFI Identification, $4,000.00
- Field Day Antennas changed to $8,500.00 plus or minus, with reduction from 4 to 2 antennas, proposal made by Jim Wiley and seconded by Steve Jensen.

The following item was changed for a reduction in pricing; Honda Suitcase Generators, $1,500.00. Motion to reduce price from $4,000.00 to $1,500.00 was made by Michael O'Keefe and seconded by Frank Pratt. Motion passed.

The following items were approved to present to the membership at the next general meeting.

- New computers with MS Office, $7.025.00. Motion was made by Michael O'Keefe and Jim Wiley seconded the motion. Motion passed.
- Float chargers for club batteries, $500.00. Ed Moses made the motion for the purchase and Michael O'Keefe seconded the motion. Motion passed.
- MFI 269 antenna and analyzer system with RFI kit, $500.00. Motion was made by Art Morton and seconded by Ed Moses. Motion passed.
- Service Monitor $5,000.00. Motion made by Michael O'Keefe and seconded by Frank Pratt. Motion passed.

Board Meeting adjourned at 10:09 PM.

Respectfully submitted,
Diane Olson KL1MY,
Secretary

VE Report

HAM RADIO CLASSES

Anyone interested in getting their license may contact *instructor@kl7aa.net* for assistance and a tutor. Anyone interested in performing one-on-one tutoring may also contact us. If you are a General or Extra willing to volunteer your teaching abilities to ELMER other operators, please feel free to contact us to coordinate your schedule.

GENERAL Course

A General course is being scheduled for January 2007. In order to acquire materials and prepare for the class, pre registration is required. Please contact KL7KO, Kathy O'Keefe at instructor@kl7aa.net to sign up so we can get an estimate of the number wishing to attend.

EXTRA Course

We would like to offer an extra class, however we are in need of instructors and mentors for this course. If you would be interested in teaching this class, facilities, materials and classroom support is available. We have several operators who would like to upgrade and just need some good classroom instruction to be successful. Please contact KL7KO at instructor@kl7aa.net if you are interested in volunteering for this opportunity.

NEW HAMS:

Congratulations to the Valley VE group

The MARA club finished a two day Saturday Tech class aimed at Valley emergency responders. The class was taught by Ray Hallenbeck (KL1IL), and Jeff Collins (KL2AD). Jeff is a senior medic with Central, and a firefighter. He also works for an AF Commo squadron. He got his license recently at a Valley testing session, and offered to help with the responder ham class. The concept for this class goes back several years, to discussions with various Mat-Su Emergency Services officials.

All students in the class successfully earned a Technician license, after watching all of the ARRL Technician videos, followed by a Q&A session, and various demonstrations of VHF operation, including packet, voice, IRLP, and so on.

The borough has been asking for a class like this for awhile, and we were all motivated into action by the essential job done by hams during the flooding in August. The borough furnished the classroom space and the course material. All instruction, demonstration, and testing was donated by the various hams involved. It is quite likely we will do this again; I'm already being asked by responders about scheduling another class.

Ken Slauson,
KL7VE

Connector of the Month

The **UHF type connector** saw its conception in the early 1930's, a time when VHF/UHF technology was quite new. The forefathers of VHF were in many cases Amateur radio experimenters, most with Engineering and technical backgrounds. They began experimenting and working the VHF frontier around 1926. Soon thereafter research into FM radio and Television began and out of this era came the then named UHF connector. Manufactures of UHF plugs and receptors all state that this type connector are of generally **non-constant (characteristic) impedance** and are suitable for use up to 200 or 300 MHz only, depending on production quality. They also state that the UHF connector can be used up to 500 MHz with a cautionary note of reduced performance.

The so named UHF connector from the past is not really suitable for use above 300 MHz at all. Perhaps the exception to this would be when a cheap and rugged system is required where loss and good signal to noise ratio is of little concern. However, even for frequencies as low as 144 MHz, if low loss and good signal to noise ratio are very desirable, the use of UHF type connectors is not recommended. The UHF connector still has a place in many applications where a robust but economical RF connector is required, but for serious applications its use should be limited to below 100 MHz. The N type is far superior in performance, and it should also be noted the BNC type connector is similar in performance to the N type, but has the disadvantage of being less rugged.

The **UHF connector** is a pre-World War II threaded RF connector design, from an era when UHF referred to frequencies over 30 MHz. UHF connectors are generally usable through what is now know as the VHF frequencies and can handle RF power levels over one kilowatt.

The most popular cable plug and chassis-mount socket carry the U.S. military nomenclatures **PL-259** and **SO-239**, respectively. The PL-259 can be used with large diameter coaxial cable, such as RG-8/U and RG-9/U, and the smaller diameter RG-58/U and RG-59/U with an adapter sleeve. Technically, "PL-259" refers to one specific mechanical design, but the term is often used for any UHF cable plug. The thread is 5/8 inch 24tpi UNEF standard. The center conductor jack on the SO-239 will also accept a banana plug.

UHF connectors were replaced in many applications by designs that have a more uniform impedance over the length of the connector, such as the N connector and the BNC connector, but they are still widely used in amateur radio, citizens' band radio, and marine VHF radio.

Do you have a connector that you would like to contribute? Email us the connector name and we can include it in the newsletter. **Contact Us**

RED CROSS BACKGROUND continued:

Several ARES leaders maintain that they and their volunteers represent ARES when supporting the ARC as a served agency. "Our issue is not the background checking, but the fact ARC considers ARES members ARC volunteers," one ARRL Section Emergency Coordinator told ARRL Headquarters. An ARES District Emergency Coordinator suggested the ARC policy is too arbitrary. "The unfortunate thing is that if a member decides not to submit to this check, then that will hamper our ability to serve the Red Cross in an emergency," he said.

ARRL Field and Educational Services Manager Dave Patton, NN1N -- whose department supports and oversees the ARRL Field Organization -- believes the Red Cross stands to lose a fair number of volunteers because of the requirement -- and not necessarily just ARES volunteers. One national Red Cross official who asked not to be identified said the organization fears it's seeing "the beginning of a hemorrhage of hams" from supporting ARC operations.

The *Statement of Understanding* (*SoU*) between the ARC and the ARRL does not address the issue of background checks. It also is ambiguous on the subject of whether ARES volunteers automatically become ARC volunteers when supporting Red Cross operations and subject to a background check. The bottom line: The requirement extends to whomever the Red Cross says it does. While some Red Cross chapters will allow ARES member participation without requiring that they register as Red Cross volunteers, others will not. One West Coast Red Cross chapter official said the ARC considers ARES members as "non-registered volunteers" and, as such, they were not required to submit to background checks. In other locales, the same volunteers staff ARES and Red Cross organizations. The ARRL-ARC *SoU* is up for review in 2007.

The ARC's new policy "is a positive action," Howe told ARRL, and aimed at raising public confidence and trust in the organization's volunteers and workers. "The Red Cross certainly values its employees and volunteers, and our background check process is not intended to be a burden to those who play a vital role in our relief efforts," she said. "We believe that in order to maintain the trust of the American people and provide them with the best quality service, all Red Cross employees and volunteers must undergo background checks according to standards being implemented across the entire organization."

Editor's Corner

kl7aa.net.
Thank you,
Kathleen O'Keefe, KL7KO

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News Letter Submissions, Information or corrections: Submissions must be received 2 weeks before meeting Email: editor@kl7aa.net
Mail: 2003 W. 46th Avenue, Anchorage, AK 99517-3176

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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 10 days prior** to the meeting or it may not be included.

Silent Key

"The Snake of Horseshoe Lake"
Robert Louis Alvord, 84, died Oct. 29, 2006, at Mat-Su Regional Medical Center in Palmer from natural causes.
Those of you, who never met BobWL7BOA, missed one of life's treasures. Not only was he a Ham radio operator, (which makes one a character and full of stories), but he was also a veteran of World War II. His grandson is also a Ham, WL7CMV.

73 Bob,
From KL7DR

KL7AA Mail Reflector

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):
http://mailman.qth.net/mailman/listinfo/kl7aa

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?"

AMATEUR RADIO CLUB COATS

For those of you interested in purchasing a coat, the costs are $50 per club member. This is a great price for a coat than can be used during summer amateur activities or as a winter coat during Sled Dog races or November Sweepstakes. With a removable liner, lots of pockets, and waterproof, the coat gives the radio club great publicity with a full back, club logo and a Name and Call-Sign Personalization on the left chest.

If you are interested in ordering a coat, a sign up sheet will be available at the club meeting or feel free to contact KL7SP@arrl.net.

INTRODUCTION to IRLP

Submitted by

TJ Tombleson, KB8JXX

Here is an invitation to try out the 2 most common Voice Over Internet Protocol (VOIP) systems for Ham Radio. First the Cadillac of the 2 is IRLP, which stands for Internet Radio Linking Project, which allows "one to one" (no one else) connections to more than a 1,100 similarly equipped VHF and UHF locations around the world. There is also a way to connect to "one to many" called "Reflectors", where on person talks and everyone else listens. There are 20 of these around the globe and require a lot of bandwidth, which is pretty close to a direct connection to the Internet Backbone. For more info please see www.irlp.net.

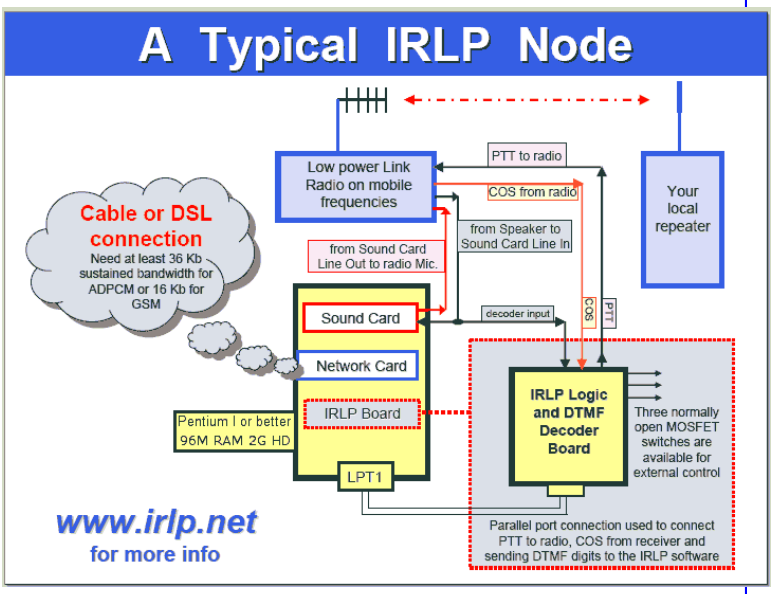
Echolink has more registered users or "nodes" (another name for computers), but uses a lower bit rate to make the connection possible. The upside of this is that it takes only a dial up Internet connection to actually be able to talk to each other, but the down side is that the audio quality has more noise artifacts and there is "Packet Loss" (drop out) during the QSO. This occurs when there is not enough bandwidth available between the 2 nodes for 100 percent of the packets to get between those involved in the conversation. Echolink also has Reflectors, but they call them "Conference Servers", but do the same thing. See http://www.echolink.org/logins.jsp

Now if you want to use either of these 2 systems here in Anchorage, you'll find them on the WL7CWE repeaters (formally none as KB8JXX). Right now it's available on 3 bands. 444.85 (+), 146.82 (-) and 51.65 (-, which is 51.15) and all take a 103.5 Hz. P.L. on the input. They are also are tied together, so when you talk in on one of the inputs, you are heard on all 3 repeaters.

I should also mention that there is another IRLP outlet, that takes advantage of a Reflector, to link full time to the Western Intertie Network (a.k.a. WIN System). You can find the Anchorage Affiliated Repeater at 146.79 (-) 100.0 Hz. P.L. here in Anchorage as well, nearly full time that uses IRLP to connect to what started out as a California linked repeater network, now has grown to 40 linked repeaters all over the world, including 2 other outlets in Alaska on nearly full time basis as well. Also this is an Open Repeater system, all licensed amateur operators are welcomed.

Things to remember:

- ➔ Open to all licensed Amateur Radio Operators
- ➔ No Access Codes needed
- ➔ You need a node number to call, or just wait, there are plenty of Echolink Stations calling when it's Not connected to anything, or is "Idle". I talked with Kuwait City
- ➔ recently, when he called the node / repeater.
- ➔ Time Outs:
- ➔ "Node to Node" if your not in a QSO, you'll be disconnected automatically after a few minutes.
- ➔ Reflectors do not have a time out, it has been disabled, so drop the link when your done.
- ➔ Disconnecting from IRLP or Echolink just takes a 73 to stop the Internet Link.
- ➔ Echolink node numbers need a "*" before entering the node number.
- ➔ Listen to the computer voice prompts to know if your doing it right - you can't break it.



For those of you interested in using the 6 meter repeater, we will be installing a 6 db antenna at the receiver site. This should allow us to improve it's sensitivity and thank you very much to those who helped us buy this new antenna for the amateur community.

If you need any help or to report any problems with either the 146.79 MHz or WL7CWE repeaters, please call me on my cell phone at 351-7102 and ask for T.J. - KB8JXX or Email at: *kb8jxx (at) alaska.com*

Anchorage Amateur Radio Club
Membership Application / Renewal

Membership Chairman: Fred Erickson, KL7FE
Email: membership@kl7aa.net
Phone Number: 345-2181

All annual memberships expire on December 31st.

Mail - In Membership Application

NAME: _____ **CALL SIGN:** _____

ADDRESS: _____

CITY:_____ **STATE**:_____ **ZIP CODE**: _____

PHONE: **E-MAIL**:

_____ HOME _____

_____ WORK

_____ MOBILE

DUES:
Dues for the calendar year are as follows:

- Individual Membership $12.00 ($6.00 for each additional member at the same address)
- Student No Charge[1]
- Life Time Membership $250.00[2]

I am enclosing payment for:

Subscription / Renewal for _____ year(s).

Total US Dollars Enclosed: $_____.

Please mail your payment and completed application to:

Anchorage Amateur Radio Club
c/o: Fred Erickson, KL7FE
12531 Alpine Drive
Anchorage, AK 99516-3121

1. **STUDENT** is defined as any individual enrolled Full-Time at any educational institution, using the criteria of Full Time enrollment for that institution
2. If Over 65, please contact Membership Chairman for pro-rated rates.

ARES - Section 7, District 7 (Anchorage, ALASKA)

Mission statement:
Dedicated to amateur radio as it pertains to disaster services. The history of amateur radio operators' involvement in sending life-saving information in and out of disaster areas [and] providing help during and after earthquakes, floods, hurricanes and tornadoes. "HAM's have been there to assist local, state, and federal agencies and relief organizations such as the American Red Cross and Salvation Army." When All Else Fails, Amateur Radio.

Mass Dispensing Exercise

Linda Mullen, AD4BL
SEC ALASKA
ad4bl@arrl.net

The Mass Dispensing exercise was Friday October 13th, 2006 in Fairbanks and North Pole, Alaska. There were 2 dispensing sites, one at the North Pole Mall and the other in the Civic Center in Pioneer Park. The plan was to dispense free flu shots to the public as an exercise in preparation of a possible pandemic. The hope was to be able to handle upwards of 500 individuals/hour. There were volunteers from 35 local agencies assisting in the exercise.

The Arctic Amateur Radio Club supported the exercise with 16 operators working at five different sites. We had operators at the 2 dispensing sites as well as the Health Dept, the Fairbanks Memorial Hospital, and the system operator for the Winlink system. We also had 4 operators sending in "test" messages as part of a modified SET. They were located in Delta Junction, Dot Lake, and Tok, all of which were at least 100 miles distant from the site. The Interior Alaska area amateurs work together during emergencies and other events and it was important to check our ability to communicate and participate together. They also were utilizing the Winlink system using the VHF side as the HF propagation was not good. We had a total of 20 operators working.

We rolled out our first use of the system for the exercise, using some of the kits we built this spring. There were lots of antenna issues since we were working out of commercial buildings where we have no outside antennas and no good way to utilize an outside antenna. The North Pole Mall site ended up taping a J-Pole to a window since there was no secure way to route coax out of the mall to an outside antenna. We used various kinds of antennas at the Civic Center including mag mounts, J-Pole, and others. As conditions changed in and around the building, we had to keep trying different antennas. An outside antenna would have been better. We do plan to build a 2Mtr dipole that we can string up within the building that will be better than what we used during the exercise.

We were working in the ICS system under Logistics which was tasked with communications. At one point, we were asked to send a message trying to locate an individual who couldn't be reached by cell phone and we were able to locate him and pass him a message and get one back. We handled all the data flow between the 2 sites, and also sent compiled reports to the Borough Emergency Manager, the Health Dept, the hospital, and other top officials. We also used the official ICS form from the Health Dept for the message traffic. They were looking at this as a cell phone down exercise knowing that in an emergency such as a pandemic, cell phones may not work.

We really worked the system hard. Our sys-op was on hand all day to assist and work out problems. We sent large files and switched to text to cut down on congestion. We tested sending messages direct as well as going thru the PMBO.

Our voice net control was located at the hospital. The hospital is central to the community and we have an antenna on top of the 5th floor. He could hear all the stations from that location and relayed messages. We use a simplex frequency for our exercises on the assumption that the repeater might not be available in a real emergency. We used both voice and data for the exercise and stayed really busy.

After the doors opened, we were mobbed by the public coming in to participate. They were running near or over 100% of goal for the 4 hours it was in operation. They ran out of vaccine halfway thru the event which was scheduled to operate from Noon to 8PM.

Benny Benevento NL7XH Bill Brookins KC8MVW at the Civic Center

Mass Dispensing Exercise (cont.)

The agencies we worked with were very impressed with the system and the capabilities that we now have. The Borough Emergency Manager spent a lot of time at the Civic Center site observing our operation. He had glowing words about what we were able to do for the agencies.

The only way we were able to purchase the equipment to build the system was thru a grant from the club in Anchorage. Winlink is an expensive option. It cost $10,000.00 to put together 6 Emcom kits capable of running Winlink. Not something that individuals might be able to afford. It is a multitasking system. Using a laptop, power supply, TNC, Dual band radio, and the MFJ power strip.

We can use it on various modes and power systems. We have put together a very versatile system. Our system operator here has also invested a considerable amount in hosting the PMBO.

Diane Johnson Logistics Chief, Zac Canright AL2S Jared

This was a really good test of the system for us and for the agencies that we assist. We learned some valuable operating lessons and how we might improve our system for the future.

The operators were:

North Pole….KL1Y, KL7JM, KL1AZ, N3WY, WL7CPS
Civic Center…KC8MVW, KE4ITP, KL7HX, AD4BL, KL2S, KL1TS
Health Dept…KL1JP, KL1NU
Hospital……KL0RN, WL7BDO
System Operator…KL7EDK
Delta Junction EOC….. KL1WD
Delta Junction Family Medical Clinic N1CKM
Dot Lake EOC…… KL1KF
Tok EOC……KL7IDA

Public Service

It is that time of year again when we start planning for Sled Dog Races. Time to purchase those 2007 calendars and get them pre marked with all the upcoming 2007 events. Listed below are events that local radio clubs and event coordinators will be looking for communication volunteers to support these upcoming public service events. Your participation is appreciated.

Knik200 January 6-7, 2006
Contact: KL1IL, Ray A. Hollenbeck: 373-6771
fuzz@mtaonline.net

Copper Basin January 13-16, 2007
Contact: Eric Lutz elutz@crsd.k12.ak.us

Klondike300 February 17-19, 2007
Contact KL1WG Bob Morgan 892-8910
bobm1@mtaonline.net

Goosebay 120 No info at this time

Fur Rondy Sled Dog Race February 24 - 26
(We have confirmed that this is planned weather permitting) Contact:

Junior Iditarod
Contact KL7DY Richard Plack 745-5222
kl7dy@arrl.net

IDITAROD 35 START: March 3, 2007
Contact: AL1W, Gordon Hartlieb al1w@arrl.net

Iditarod Restart March 4, 2007
Contact KL1IL Ray A. Hollenbeck 373-6771
fuzz@mtaonline.net

ARES District 7 Contact Information
Heather Hasper, KL7SP
KL7SP (at) AARL.NET
907-275-7474

December 2006

Anchorage Amateur Radio Club
PO BOX 101987
Anchorage, AK 99510-1987
www.KL7AA.net

ANCHORAGE ARES
DISTRICT 7 & 5
KL7AA & KL7JFU

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Parka, meets at Peggy's restaurant, 11AM Contact: Lil Marvin NL7DL, 277-6741 MARA: Matanuska Amateur Radio Club meets at Station 61 in Wasilla. Contact: Tim Comfort, NL7SK SCRC: *South Central Radio Club & QRP club meetings held at the Denny's at Bragaw and DeBarr.*					1 ***AARC Meeting7PM***	2
3	4	5	6	7	8 ***SCRC Meeting7PM***	9 ***PARKA 11 AM EARS 3:00 PM***
10	11	12	13 *MARA Board Meeting 7PM*	14	15 ***QRP Meeting7PM***	16
17	18	19 *AARC Board Meeting 7PM*	20	21	22	23
24	25	26	27	28	29 ***MARA Meeting 7PM***	30
31	*EARS: Elmendorf Amateur Radio Society, Meets at R1 North on Elmendorf AFB*					

ARES NET: Thursday Nights 8:00 PM 147.27+ PL: 103.5 or 443.30+ PL 103.5

Schedule of Events

DECEMBER MEETING: *There will be a Christmas party and a Chinese gift exchange at the club meeting on December 1st. Gifts under $25 are appropriate.*

To add to the Calendar please contact: John Lynn at Johnlynn@gci.net

ARES NETS:

1st Thursday: HT / Portable
2nd Thursday: Mobile Madness
3rd Thursday: RED CROSS
4th Thursday: Emergency Power

Data You Can Use:

Officers

President Jim Larsen, AL7FS president@kl7aa.net
Vice Pres. Judi Ramage, WL7DX vicepresident@kl7aa.net
Secretary: Diane Olson, KL1MY secretary@kl7aa.net
Treasurer Heather Hasper, KL7SP treasurer@kl7aa.net
Trustee Keith Clark, KL7MM trustee@kl7aa.net
Activities Chairman Vacant
News Letter Editor: Kathleen R. O'Keefe, KL7KO
Membership Chairman Fred Erickson KL7FE
membership@kl7aa.net
Past-Pres. Jim Larsen, AL7FS pastpresident@kl7aa.net

Three Year Board Members

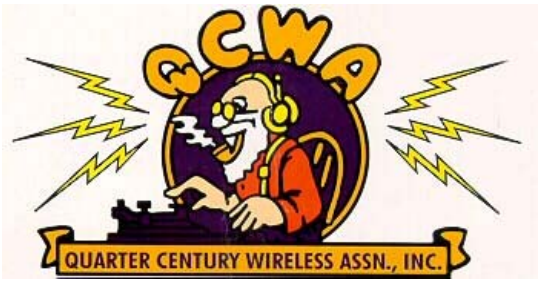
Jim Wiley, KL7CC jwiley at alaska.net
Paul Spatzek, WL7BF Paul.Spatzek at acsalaska.net
Frank Pratt, KL7RX kl7rx at arrl.net

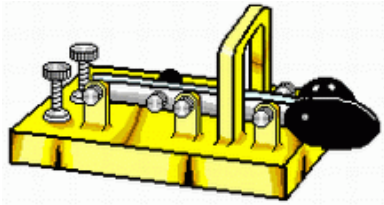
One Year Board Members

Steve Jensen - KL0VZ, jensens at acsalaska.net
Richard Kotsch - WL7CPX, richardkotsch at yahoo.com
TJ Sheffield - KL7TS, kl7ts at hotmail.com
Edward Moses - KL1KL, kl1kl at ak.net
Mike O'Keefe - KL7MD, mok at gci.net
Kathleen O'Keefe – KL7KO kok at woodscross.net
Nick Casler – KL1XD ncasler at tertiary.net
Art Morton - ALØU, Jam443 at Chugach.net
Bill Reiter - KL7ITI, wwryter at cs.com

AARC web page & Email contact addresses:
Homepage: **http://www.KL7AA.net/**
Webmaster: webmaster@kl7aa.net
Membership: membership@kl7aa.net
Newsletter: editor@kl7aa.net

News Letter Submissions, Information or corrections:
Submissions must be received 2 weeks before meeting
Email: editor@kl7aa.net





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 Nov 2006

KL7AA: Flattop Mountain 2,200 ft
146.94/34 MHz, 80 watts, auto-patch, 141.3 Hz PL
224.94/223.34, 25 watts, no patch, no PL
444.70/449.70, 25 watts, auto-patch, 141.3 PL

WL7CVG: Mount Susitna 4,396 ft
VHF: WL7CVG/R1 147.270/147.870 PL 103.5, no auto-patch
UHF: WL7CVG/R3 443.300/448.300 PL 103.5, no auto-patch

WL7CVF: Grubstake: Hatcher Pass 4,536 ft
VHF: WL7CVF/R1 147.330 / 147.930 PL 103.5 Hz (no patch)
UHF: WL7CVF/R3 443.900 / 448.900 PL 103.5 Hz (no patch)

KL7CC, Anchorage Hillside, SCRC & QCWA
146.97/.37 MHz, 30 watts, auto-patch, 103.5 Hz PL

KL7M Anchorage Hillside
147.21 / 147.81 MHz, on IRLP, 97.4 Hz PL

KL7ION at Mt. Gordon Lyon, PARKA 3,940 ft
147.30 / 147.90, MHz - 80 watts, no patch, 141.3 Hz PL

KL7AIR Elmendorf AFB, EARS: 146.67/146.07, 107.2 Hz PL

KL7JFU, KGB road, MARA: 146.85/146.25, auto-patch, no PL

Palmer IRLP: 146.64/.04, simplex patch, no PL

Mile 58.3 Parks Highway IRLP: 147.09/.69 MHz, 97.4 Hz PL

KL3K, Girdwood - IRLP
146.76 / 146.16 MHz, 25 watts, no patch, 97.4 Hz PL

South Anchorage IRLP—**KL7AX**: 146.79/ 146.19 MHz, 100 Hz PL

WL7CWE Anchorage IRLP
2 Meter: 146.82/146.22MHz PL 103.5
6 Meter: 51.65 output / 51.15 input, PL 103.5Hz
70 cm: 444.85/449.850 MHz PL: 103.5 Hz (Node 3400)

South Central Area Simplex Frequencies
146.52 MHz Calling and Emergency frequency
147.57 MHz National DX Calling / Coordinating frequency
146.49 MHz Anchorage area simplex chat
146.43 MHz Mat-Su Valley simplex chat

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
Statewide ARES Net: 147.27/87 103.5Hz Sunday 7:30 PM local

Internet Links, the favorites from our readers:
AARC http://www.KL7AA.net/
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.haarp.alaska.edu/
http://www.amqrp.org/misc/links.html
QRP and Homebrew Links http://www.AL7FS.us
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 editor@kl7aa.net**

Regular HAM Gatherings:

Tuesday Lunch, 11:30 AM: Denny's on Denali behind Sears. Several old timers show for this and have lots of stories to share.

Thursdays Brunch, 9:30 AM: Brunch NW corner of Debarr and Bragaw at Birch Tree Dining. 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 American Diner, at the SE corner of Arctic and International. Great Fun.

Who Do I Contact to Join AARC

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.

MONTHLY 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 147.27+ repeater.

1st Tuesday each month (except for holidays):
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. Contact: Jim Wiley, KL7CC 338-0662.

2nd Friday each month: SCRC general meeting at 7:00 PM at Denny's on Denali Street. Talk in on 147.27+.

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

2nd Saturday each month (except for holidays):
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. Contact: Jim Wiley, KL7CC 338-0662.

2nd Saturday of each month: EARS general meeting at 3:00 PM. Meetings are held at R1 North, next scheduled meeting is Saturday, November 11, 2006 at 1500. Contact info - PO Box 7069, Elmendorf AFB 99506 or email Ron Keech, KL1PL for information. (Home) 349-2442
Email: kl7air@qth.net or ronkeech@kl1pl.us

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 meeting 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. Bring projects to share with the group. Hungry QRPers start showing up about 6PM. Info contact Jim Larsen, AL7FS, JimLarsen2002 at alaska.net or 345-3190.

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/

4th Saturday of each month:Valley VE Testing at 7PM. 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. Wasilla Red Cross is in the Westside Mall, next to Speedy Glass…it's just a click up from AIH hardware.

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.

Anchorage Amateur Radio Club, Inc
Post Office Box 101987
Anchorage, Alaska 99510-1987
www.kl7aa.net

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