

# Anchorage Amateur Radio Club

Next Meeting SEPTEMBER 4<sup>th</sup> 2009, 7:00 PM



**This month:**

**AARC Hamfest: SAT 9/19**

**Technician HAM CLASS: 9/8 - 10/1**

**MS 150: 9/12 - 9/13**

## **Mt. Susitna, Fact or Fiction? Myths and Manias.**

With all the attention paid to the Mt Susitna repeater systems recently, it seems like a good time to clarify some questions, concerns, myths and facts about this remote hill site.

**Mount Susitna** is a 4,396 feet (1,340 m) mountain in the U.S. state of Alaska. It is located on the west bank of the lower Susitna River, about 33 miles (53 km) northwest of Anchorage, Alaska.<sup>[1]</sup> The mountain is a prominent landmark in the Anchorage, Alaska area and can be seen across the Knik Arm of the Cook Inlet from most of the city, especially at higher elevations

**Mount Susitna** is often called The Sleeping Lady for its resemblance to a recumbent woman from Anchorage and the parts of the Valley. The name is sometimes said to derive from a Dena'ina legend, in which a woman named Susitna belonging to a race of giants vows to sleep until world peace is achieved, but no such legend actually exists. The mountain's Dena'ina name is *Dghelishla*, meaning "Little Mountain"; in English it was simply named for the Susitna River which means *Sandy River*.

Mt Susitna is known as a roche moutonnée. In glaciology, roche moutonnée is a rock formation created by the passing of a glacier. When a glacier erodes down to bedrock, it can form tear-drop shaped hills that taper in the direction of flow.

The appearance of the rock formation is well defined: a formation where all the sides and edges have been smoothed and eroded in the direction the glacier was moving, with the exception of the rough and craggy far side.

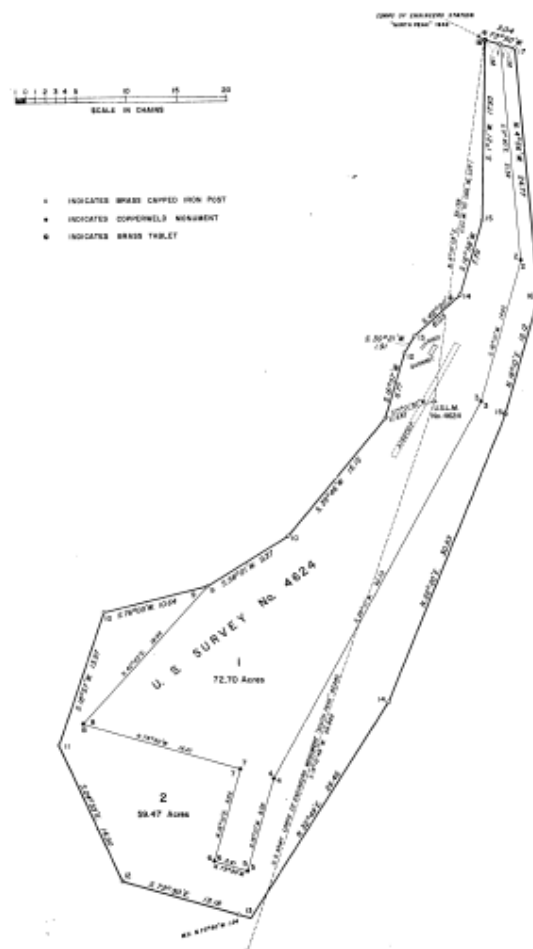
The Anchorage bowl topography has been influenced by 5-7 glaciations. Over several thousand years, thick ice sheets from the Talkeetna, Chugach and Alaska Ranges flowed down Cook Inlet. The five well documented glaciations from oldest to most recent were

the Mt Susitna, Caribou Hills, Eklutna, Knik and Naptowne. The earliest glaciation in the Anchorage area is known as the Mount Susitna for the erratics and other glacial features found on the top of Mount Susitna. This is the time period when it obtained its characteristic streamlined shape. It is dated to the late Pliocene to the early Pleistocene (2-6 million years ago).

## **History of the Communications Site:**

Mt Susitna has a long history of providing communications. In 1942 the Army Corps of Engineers sent a survey crew to the mountain. The north ridge was marked with a survey marker USS 4624 and a plat drawing from 1964 shows the 132.17 acre parcels above the mountain including the original airstrip and the Quonset hut. Original built by the Army Corps of Engineers, the communications site was maintained by Motorola in the 1940's, General Electric in the 1950's and 1960's, and over years has been maintained by almost every communication corporation ever to provide service in Alaska.

For years, the site was manned with persons living there for months at a time to ensure reliability and due to the inaccessible nature of the hilltop.



# Mt Susitna: Myths and Manias

Currently there are still three cots on the hilltop as well as a small kitchen facility to ensure that if you do get stuck on the mountain while doing communications maintenance and repair that persons will still have shelter and heat from the extreme elements.

The **Susitna River** is a 313-mile (504 km) long river in the South Central Alaska. It is the 15th largest river in the United States of America, ranked by average discharge volume at its mouth. The river stretches from the Susitna Glacier to Cook Inlet. The Susitna appears to have been first explored in 1834 by a Creole Indian named Malakor. The 1890 census reported that Susitna Village on the east bank of the river had 146 Kenai Natives and 27 houses

**Well I can see the mountain?** Mt Susitna is located just 32 miles west northwest of Anchorage, Alaska. While this seems very close to town it is one of the most remote locations to access in south central Alaska. At the base of Mt Susitna you will find the Susitna Trail which takes you on a long , steep trail. When people have climbed and skied Mount Susitna, some take a steep route up the South Summit. But the normal route used by snowmobiles to go up the long and gradual north ridge leading to the North Summit of Mount Susitna. At Eagle Song Lodge you will find that the normal Mount Susitna access trail is not being maintained any more. The trail that will get you there is the Thomas Trail. It gets you to the base of the north ridge where most people ditch snow machines due to terrain and large amounts of snow and from here you ski to the North Summit. This snowmobile trail is indeed the crown jewel of trails in the Susitna Valley.

When you see this sign at the base of Mt. Susitna stay left and start climbing. If you cross a creek (Wolverine Creek) you are going the wrong way, will not make the top. Even the best rated snow machines with years of experience riders get stranded on this trail due to its challenges.

So why all this background information? This information is provided to allow you the readers and members of AARC to get a better idea of how truly remote this beautiful location and the challenges that go into accessing such a unique communication site that provides some of the widest RF coverage for South Central Alaska.



View looking towards the Alaska Range off the 'backside' of Mt. Susitna. The slope on the backside of the mountain drops



Two of the three generators located on Mount Susitna.

Kari, James; James A. Fall (2003). *Shem Pete's Alaska: The Territory of the Upper Cook Inlet Dena'ina* (2nd ed. ed.). [University of Alaska Press](#). p. 112. [ISBN 1-889963-57-7](#).

["Mount Susitna". Geographic Names Information System. U.S. Geological Survey. 2000-01-01. http://geonames.usgs.gov/pls/gnispublic/f?p=gnispq:3::NO::P3\\_FID:1410444](#). Retrieved on 2009-05-04



# Mt Susitna: Myths and Manias



Strong Winds on a clear day on Mt. Susitna. Winds can reach 200 Knots on a windy day

# Mt Susitna: FACTS

## **Mt Susitna Repeater:**

The Mt. Susitna ham radio Repeater was installed in 2004 through the generosity and efforts of several persons including: KYES Chief Engineer Jeremy Lansman who allows us to place antennas on the KYES tower and through the cooperative efforts of several ham radio operators outreaching to ProComm, the current site owners and maintenance operators to allow the Anchorage Amateur Radio Club a location at this remote site for a ham radio repeater at a discounted commercial rate.

Through the funding provided by the Anchorage Amateur Radio Club, KL7AA, the repeaters and antennas were purchased. Then through the efforts of Jim Wiley, KL7CC a redundant repeater system was designed and built for this remote location. The Mt. Susitna system is cross banded with both VHF and UHF operations, however there are not just two repeater systems on Mt. Su. There are 4 repeaters; 2 UHF and 2 VHF. This was done as an effort to ensure reliability of our repeater system when public system fail.

From the 2004 AARC Newsletter:

*The Susitna system was designed and built up by Jim Wiley, KL7CC, and was installed on the mountain August 31st, 2004 by John Lynn, KL7CY, and Steve Gehring, NL7W. It is through volunteer efforts such as these men have provided that AARC can do what it does for amateur radio and the community. Also this entire project would not be possible without the support of KYES, Channel 5, and ProComm. Their support of amateur radio is very much appreciated.*

## **Maintenance of Mt. Susitna:**

The Mt. Susitna Repeater carries the call sign of WL7CVG, Alaska ARES. The repeater has always been designed for and with the intent to be used as an emergency communication system. The equipment is owned by the Anchorage Amateur Radio Club, Inc. All maintenance and financial responsibilities for this repeater system are that of AARC, Inc. This repeater currently costs \$1200 per year for our rental space in the heavily populate Quonset Hut on the top of the mountain. While this is a bargain in terms of the rates paid by other commercial operators on this location, it is one of the most expensive repeater site currently operated by AARC. In comparison, the KL7AA 146.94 repeater on the hillside, only costs AARC \$10.00 per month through a very long standing lease with ATT Alascom.

During the Winter of 2008/2009 the Mt. Susitna repeater suffered several power outage failures. This was due to the inaccessibility of the hilltop by helicopter refueling personnel due to weather. Procomm, the maintenance providers of the hilltop repeatedly tried to address the ongoing failures and generator problems.

Some operators have asked, why AARC did not have back up power on the hilltop? Well we did, however the battery systems were not able to be hooked up to the repeater system prior to last winter. Hence when Procomm had power failures, so did our equipment. AARC President, Randy Vallee, KL7Z is also a diesel mechanic and each time he was hired by Procomm to address the generator issues, he also would take time to evaluate and assess the AARC equipment including hooking up back up power. Earlier this summer, AARC absorbed the expensive costs of hiring a helicopter, paying for a Procomm technician and with the help of John Lynn, KL7CY and Michael O'Keefe, KL7MD these AARC members went to Mt. Susitna and swapped out our old Diamond X50 dual band Antennas for two Comtelco high wind load commercial strength antennas that we hope will be better able to withstand the 200 mph winds that are experienced on Mt. Susitna.

The total costs of these upgrades was just under \$5000! The high costs associated with MAINTENANCE of this repeater site is just a fraction of the long term investment of more than \$20,000 that has been provided by AARC, Inc to ensure emergency communications reliability. The Mt Susitna repeater system is not a \$500 IRLP node in someone's garage. It is not a \$500 Weather station on top of your roof, it is an expensive long term, emergency communications based repeater infrastructure that requires access to one of the most remote locations in South Central Alaska that is only accessible by helicopter. While some members of AARC were against the installation of such a remote system, the long term benefits and the number of public service activities that have been able to use this repeater has been extensive and positive.





### **NETS on Mt. Susitna:**

Several nets have occurred on the Mt. Susitna repeater system since its installation in 2004. Since this is an ARES repeater, the local Anchorage and MATSU Valley ARES net moved to the Mt Susitna Repeater in 2004 at 8PM on Thursday Evenings to provide broad coverage area.

Soon thereafter, in October of 2004 realizing the great coverage of this repeater, The Great and Honorable LEO Society (Gahleos) started the '**LEO Alaska Road and Weather Report Net**', M - F, at 9AM local AK Time on the repeater. The net was run locally by John Bury, KL7QZ, Robert Rowley, AL2B and Dan O'Barr, KL7DR. The net starting taking checkins from around South Central during the late commute hours to allow for road and weather reporting from around the region. As the net grew more stations would check in and the net became more and more widespread throughout south central. Agencies, including the National Weather Service, the State Emergency Communications Center and the ANC OEM started monitoring as well due to the information that was available.

In the fall of 2007, the net and the Alaska Reflector owner approached AARC, the owners of the equipment and the trustee about allowing the growing IRLP network to be allowed on the repeater during the Road and Weather report net. Based on an MOU signed by the Node owners and AARC, INC, the Board voted on and approved specific times that IRLP would be allowed on the Mt. Susitna repeater system. The MOU emphasized that the net was to remain an ALASKA based net and that the net managers would monitor this to ensure the theme of the net remained Road and Weather based and that remote Alaska stations such as Bethel, Kotzebue, Barrow, Juneau and others would be the focus of the net.

In the spring/summer of 2008, the board and trustee approved letting the net take out of state checkins with the hope of promoting the ARRL Alaska Statewide convention. Checkins from out of state were to cease after this event and the net was to go back to being ALASKA based net only. This never occurred and the focus of the net migrated to be the 'Morning Net' a more informal, rag chew social net rather than a formal weather and road reporting net. The original purpose and intent of the net had changed and in July of 2009 AARC rescinded the MOU with the NODE owner and has removed IRLP from all KL7AA, AARC owned repeater systems except as approved by the board or DEC.

**REFERENCES:** <http://crust.outlookalaska.com/SusitnaNorthRidge/index.htm> (This is an EXCELLENT Site with lots of information about climbing the mountain and great pictures); AARC October 2004 Newsletter; [www.obarr.net](http://www.obarr.net);

See: <http://www.kl7aa.net/documents/AARCandIRLPFactorFiction.pdf> The 'Road and Weather'

Currently the only formal net in operation on the Mt. Susitna repeater is the South Central Alaska ARES Net on Thursday evenings. Any licensed amateur can open and operate a net as allowed by FCC Part 97. □



**MT Susitna:** Here is an example of Flag icing that occurs on antennas and guy wires on Mt. Susitna due to the extreme winter weather conditions. This type of Flag icing can easily de-tune an antenna. We hope by the new antenna installations we have eliminated what has become known as the 'howling monkey' that often has occurred on the Mt Susitna repeater during the Freeze thaw cycles of spring and fall.



**Who are the Gahleos?** They are group of Alaska amateur radio enthusiasts who operate the low Earth orbiting satellites. All are members of AMSAT and they were founded through the efforts of Dan O'Barr, KL7DR (formally KL7BD), Dale Hershener, KL7XJ and John Bury, KL7QZ as well as others.



*Roof damage to Quonset Hut that occurred during the winter 2008/2009 causing radios to short out and the facility to flood due to heavy snow load dropping from the silo above. Procomm is supposed to repair this damage this summer.*

Voice Over Internet Protocol, better known as VoIP, is not new. People have been enjoying voice communication over the Internet for years. What is new are the latest Amateur Radio applications of VoIP. Rather than relying on ionospheric propagation for long-distance communication, a growing number of hams are using the Internet in combination with VHF or UHF FM transceivers to span hundreds or thousands of miles.

There are several flavors of amateur VoIP in use today. Depending on how they are configured, these systems may involve *repeater linking* where two distant repeater systems share signals with one another (Figure 1). Another application is so-called *simplex linking* where one or more users with handheld or mobile transceivers communicate directly with a “base” station (or *node*) that is linked to the Internet (Figure 2). The one element that all amateur VoIP systems have in common is that the Internet acts as the relay between stations.

The appeal of amateur VoIP is easy to understand. Technician licensees without access to HF can use these VoIP systems to enjoy a kind of “Internet-aided” DXing, having conversations with other hams far beyond the range of their FM transceivers. General and Amateur Extra hams without HF stations at home can also benefit from VoIP in the same manner.

Let’s take a brief look at a few of the current incarnations of Amateur Radio VoIP.

## EchoLink

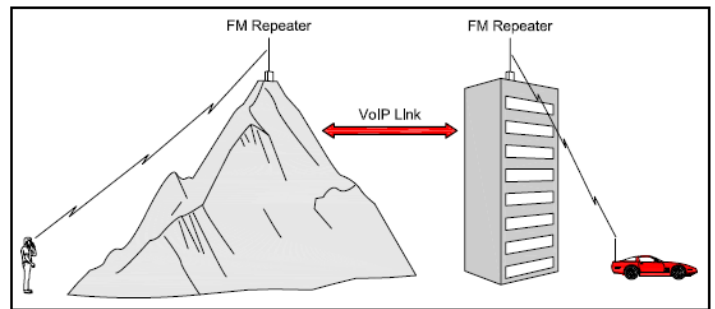
EchoLink was developed by Jonathan Taylor, K1RFD, in early 2002. In an astonishingly short period of time, EchoLink has become one of the dominant Amateur Radio VoIP systems with more than 30,000 users worldwide. The free EchoLink software for *Windows* can be downloaded at [www.echolink.org](http://www.echolink.org).

When you start the EchoLink software, your computer taps the Internet to connect to an EchoLink server. Before you can make your first connection to the network, your call sign must be verified with the information in the FCC database. This can take minutes or hours, depending on the state of the system, but it helps reduce the chances of non-hams entering the EchoLink network.

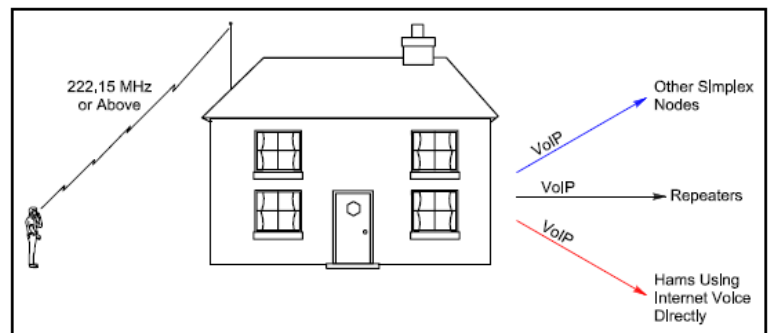
Once you’re validated (you only do this once), the rest is easy. The EchoLink server acts like a telephone switchboard in cyberspace. It maintains a directory of everyone who is connected at any moment. After browsing the directory, you can request a connection between your computer and that of another amateur.

Here’s where it becomes interesting. The ham on the EchoLink receiving end may be sitting in front of his computer with a headset and microphone. Or he may have his computer connected to a base radio at his station that is acting as an RF relay to a handheld transceiver or mobile rig. Or the destination station may be part of a repeater system. In any case, once the connection is established, thing you say will wind up being heard in the other amateur’s headset, or transmitted over the air.

At your end of the EchoLink connection, you may be the one wearing the headset, or using a simplex connection to your base radio, or using a repeater. When you connect to an individual station, the custom is to call in the same fashion as you would during a traditional on-air conversation: “W1ABC from WB8IMY.” Or if you are connecting to a distant repeater system: “WB8IMY, Wallingford, Connecticut.” (You need to hesitate about 2 seconds before speaking to compensate for the delay.)



**Figure 1—Two FM repeaters linked via VoIP.**



**Figure 2—A diagram of a VoIP simplex node. If a control operator is not physically present at the station location and the node is functioning with wireless remote control, the control link must operate above 222.15 MHz. See the sidebar, “Is It Legal?”.**



## VOIP and Amateur Radio

The EchoLink servers also support *conferencing* where several amateurs can converse in roundtable fashion. There are even EchoLink nets that meet within these conference areas on a scheduled basis.

### **EchoLink Setup**

To run EchoLink you'll need a PC with *Windows 98/2000/XP* and a sound card. The software is easy to set up. A "wizard" function guides you through each step.

If you want to enjoy EchoLink conversations while sitting at your computer, you will need a microphone headset. These are commonly available from several *QST* advertisers as well as RadioShack. The microphone plug attaches to the microphone input jack of your sound card and the headphone plug typically attaches to the SPEAKER OUT jack. In addition to setting up the EchoLink software, you may also need to adjust your sound card VOLUME and RECORDING control settings in *Windows*.

If you plan to connect a radio to your computer so that you can use EchoLink over an RF link, you'll need an interface. The strong enthusiasm for EchoLink is driven by the fact that it does *not* require a specialized hardware interface for connections to transceivers. All timing functions and DTMF decoding take place within the EchoLink software. This means that you can enjoy EchoLink with the radio of your choice by using common sound card interfaces such as those sold by West Mountain Radio (the RIGblaster folks), MFJ, TigerTronics and others. If you are already operating PSK31, RTTY, SSTV or similar modes with a sound card interface, you can become an EchoLink operator by simply downloading and installing the software—no additional hardware or cable connections required.

There are also hardware interfaces specifically designed with VoIP in mind. Check out the ULI (Ultimate Linking Interface) from James Milner, WB2REM, at [www.ilinkboards.com](http://www.ilinkboards.com). The ULI works with VoIP as well as the various Amateur Radio digital modes. It also offers built-in computer control of your radio. You can change frequencies, for example, by issuing commands on a remote UHF link, or via the Internet. It even allows remote rebooting of the station PC.

Also take a look at the multimode interface board designed by VA3TO. You'll find it on the Web at [www.ilinkca.com](http://www.ilinkca.com).



### **iLink**

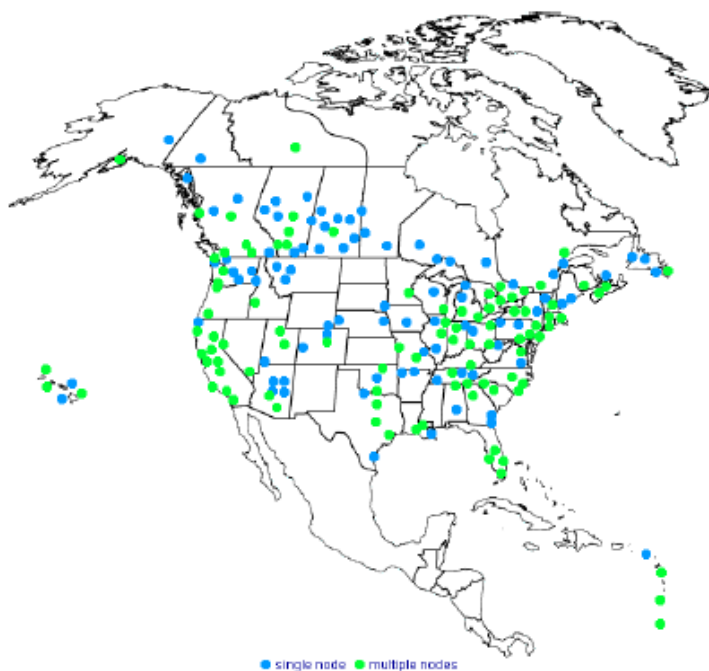
The iLink system is the brainchild of Graeme Barnes, MØCSH. iLink is one of the VoIP pioneers and is functionally quite similar to EchoLink, although it requires a specialized radio interface such as the ULI or VA3TO boards mentioned above. The iLink software is available for free downloading on the Web at [www.aacnet.net/radio.html](http://www.aacnet.net/radio.html).

EchoLink and iLink users are on separate server systems. With the rise of EchoLink, however, iLink has seen dramatically reduced activity in recent months.

### **eQSO**

eQSO, created by Paul Davies, MØZPD, was designed to operate like a worldwide ham radio net. It is based around dedicated servers, and can be used from a personal computer or through a radio link (known on eQSO as an "RF gateway").

The eQSO software for *Windows* is available for free downloading on the Web at [www.eqso.net](http://www.eqso.net), with on-line support available at [www.eqso.org](http://www.eqso.org).



**Figure 3—This is an example of one of the node maps maintained by WW4M at [status.irlp.net](http://status.irlp.net).**

The advanced ULI interface can be used with iLink, EchoLink and eQSO, as well as other Amateur Radio digital modes such as RTTY and PSK31. The ULI offers versatile remote control capability. See [www.ilinkboards.com](http://www.ilinkboards.com).



A linking version of the software offers courtesy tones and a CW ID, and uses the computer's COM port for keying the transmitter and reading the receiver's squelch status. If a squelch line is not available, eQSO has an internal VOX function that can be selected. eQSO works with all the usual PC-to-radio interface boards mentioned previously.

Because there is no call sign validation, eQSO has security features that can be activated by "administrators." Administrators can mute or even block people who don't operate according to license privileges.

Shortwave listeners (SWLs) are also encouraged to use eQSO, and they are trusted not to talk in "rooms" containing radio links. Those who do are muted or banned. However, SWLs can talk with hams in "off-air" rooms and many consider this as further encouragement to gain a license. Operators of RF gateways should avoid connecting their stations to these "off-air" rooms.

### IRLP

With IRLP {the Internet Radio Linking Project} we enter the realm of VoIP networks that can only be accessed by radios.

David Cameron, VE7LTD, is the creator of IRLP. Dave and Michael Illingby, VE7TFD, set up the first two IRLP nodes to link Vancouver and Vernon, British Columbia.

The IRLP network consists of nodes on either FM repeaters or simplex. All node systems run IRLP *Linux*-based software and use specialized IRLP interfacing hardware. Individual users need only access the node and use the appropriate DTMF codes to set up an IRLP contact. Unlike iLink, EchoLink and eQSO, you cannot use IRLP directly from a PC without a radio, which makes it more secure against non-ham access.

Using an IRLP node is a lot like using a repeater autopatch. The first thing you must do is obtain the access code from the node operator or group. As with some autopatches, you may be required to join a club before you receive the access codes. Some IRLP nodes also use CTCSS subaudible tones in addition to DTMF codes to control access.

An interactive map and list of IRLP nodes is available on the Web at [status.irlp.net](http://status.irlp.net) (see the example in Figure 3). To connect to an IRLP node, you usually begin by identifying yourself and sending the DTMF access code. If you are successful, the node will respond. After that, it is a matter of stating your intentions and sending the 4-digit code for the distant node you wish to access:

"WB8IMY accessing Node 5555." Once the connection is set up, you'll hear a voice ID from the target node. When you hear the confirming ID, you're free to make your call and start a conversation.

IRLP also supports roundtable conferencing on *reflectors*. These reflectors allow only one person to talk at a time, but quite a few stations can connect simultaneously. Every other Sunday the IRLP International Net convenes and invites check-ins from around the world. To participate in the net there must be a local net controller for your node. If a local controller is not available, you can only monitor. Young hams will find the IRLP4KIDS Net on IRLP Reflector 5, Channel 8 (node 9508) every Saturday at 0100 UTC. For more information about this net, see [www.qsl.net/irlp4kids](http://www.qsl.net/irlp4kids) or e-mail [irlp4kids@qsl.net](mailto:irlp4kids@qsl.net).

To set up a node you need a computer running *Linux*, the IRLP software and an IRLP hardware interface. The nodes are tightly coordinated within the IRLP network and they use PGP cryptography to authenticate each other. All of this technology is transparent to most IRLP users, though. If an IRLP node exists in your area, all you need is an FM transceiver to join the fun. You can find more information about IRLP on the Web at [www.irlp.net/](http://www.irlp.net/).

### WIRES-II

WIRES-II—Wide-coverage Internet Repeater Enhancement System—is a VoIP network created by Yaesu that is similar in function to IRLP, except that the WIRES-II node software runs under *Windows*. Like IRLP, WIRES-II is entirely radio based; you cannot access a WIRES-II node directly from the Internet. A WIRES-II host server maintains a continuously updated list of all active nodes.

The hardware portion of WIRES-II is the HRI-100 interface (Figure 4). The HRI-100 connects to a PC, which in turn is connected to the Internet via high-speed or dial-up access. The HRI-100 also acts as the interface between the node radio and the computer. Even though the HRI-100 is manufactured by Yaesu, it is designed to work with any transceiver.



**Figure 4—The hardware controller at the heart of the Yaesu WIRES-II system.**



There are two WIRES-II operating modes. The SRG (Sister Repeater Group) mode allows users to connect to any other WIRES-II node (up to 10 repeaters or base stations) within a group specified by the node operator. As with IRLP, DTMF tones are used to control access. Depending on how the node operator has configured his system, you may need to send a single DTMF tone before each transmission, or just at the beginning and end of your contact.

The FRG (Friends' Repeater Group) operating mode allows you to connect to any other WIRES-II node in the world. The FRG mode also allows group calling of up to 10 nodes, a kind of conferencing function. To make a regular FRG call, you press #, then five more DTMF digits depending on the ID number of the WIRES-II node you are attempting to access.

### **But Is It Ham Radio?**

The answer to that question depends on how you define "ham radio," and there is no shortage of opinions. Some radio purists reject amateur VoIP completely. They feel that hams shouldn't incorporate the Internet into any aspect of Amateur Radio communication. It must be all RF or nothing. Others take a more expansive view and only draw the line at VoIP communication that lacks radios at both ends of the Internet path.

One thing that can probably be said with certainty is that amateur VoIP is here to stay. Amateurs young and old are embracing the technology, and the growth of affordable broadband Internet access is acting as a catalyst. To invoke the shopworn cliché, amateur VoIP isn't everyone's cup of tea. It is just one of the dozens of interests that comprise Amateur Radio. If amateur VoIP offends your radio sensibilities, avoid it. If not, a new operating experience awaits.

*Thanks to Chris Kirby, G4FZN, Jonathan Taylor, K1RFD, James Milner, WB2REM, Paul Cassel, VE3SY, Dave Cameron, VE7LTD, Chip Margelli, K7JA, Brennan Price, N4QX and Chris Imlay, W3KD, for their assistance during the preparation of this article. Steve Ford, WB8IMY, is the Editor of QST and can be contacted at [sford@arri.org](mailto:sford@arri.org).*



# IRLP and AARC

You just have to love society. People will inevitably ignore something, good, bad or indifferent, until they no longer have a choice in the matter. Then the response is just like their first born child was taken from them.

I must admit, I have only used IRLP one time. It just didn't offer me what I needed for that personal gratification in operating. A different thing works for me, but be it far from me to minimize the enjoyment that others derive from it. The way I figure, that is why there are so many modes of operation in Amateur Radio.

Let's explore IRLP as it pertains to the AARC and its repeaters.

### **THE BASICS**

**Pluses** - It allows communication with other hams worldwide when it is linked. It doesn't require a large antenna array, tower or lots of money to participate in it. It can be done with a modest amount of knowledge and experience in ham radio.

**Minuses** - Requires a computer with an internet connection. Requires a connection to a ham radio transceiver and antenna and requires a control operator at the radio.

We all know that IRLP and its variations are becoming very popular. It is a mode that is easy to use and allows a wide audience for both listening and participation. We only have to listen to the nets established to see its uses, and it is still growing.

So, to run an IRLP node, someone has invested money to buy a computer, the software, maintain the internet connection, a radio, radio interface, antenna, and feedline, in all the right amounts to make it work. That makes an assumption that they have an amateur radio license in good standing.

Now we have to invest time. Time to build and test the system and make it operational. Time to be a control operator. Time and money for any repairs, because we all know things are built to fail. We just hope to go a long time before they do fail. The reality, they will fail especially over time as all equipment and people are not ever lasting.

### **APPLICATION**

At this point, we have an IRLP capable station ready to operate. We sign up and get a node number, and learn the commands to bring it up, change the other nodes we hear and talk to. The excitement builds.

It has now been connected to other nodes, and all kinds of people from all over the world are coming across. Different voices, different accents, different languages. Life is good.

# IRLP and AARC

## REALITY

As we are cruising down the highway of happiness, enjoying the breeze in our hair, the sun is out and we are loving life.

Ooops, I just heard someone make reference to something I find offensive. I am a polite person, I wait my turn, and finally have an opportunity to suggest to the offending party that they should not make said remarks, especially at this time of day, I have young children listening, and they shouldn't be subjected to such offensive remarks. The wonderful gentleman I suggested this thought to, retorts, "If you don't like it, turn your radio off."

Crash, bang, boom... My life has just been assaulted in the worst way. I approached things like an adult, and I get Ghengis Khan replying to me. The clouds and rain start, and the lightening is striking close to home.

I am a civic minded person, I notify the control operator since the offender was the person who established the IRLP link to the frequency I was listening to and participating on. I also enlist several others to do the same thing. I figure that if enough people complain, something will be done. Of course, I do this over the phone, because "Ghengis Khan" might be listening. I talk to several people, and a few several times, because they listen and they agree with me.

Finally someone suggests recording the person on the air making the offensive remarks and turn it over to the ARRL's Official Observer. Nah, that is asking me to do too much, plus that person might find out who I am and not like me anymore for trying to rain on them. I'll just complain to someone in the perceived seat of power, and have them do my dirty work; after all, that is the American way.

Now it has made its way up the ladder of authority. The club that runs the repeater that the offensive things were uttered on has it as an agenda item to address.

## FACTS

### Exhibit 1

#### MEMORANDUM OF UNDERSTANDING BETWEEN Anchorage Amateur Radio Club (AARC) AND Dave Cloyd, KL7M

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the Anchorage Amateur Radio Club, hereinafter referred to as AARC, and Dave Cloyd, KL7M, hereinafter referred to as KL7M.

#### PURPOSE:

The purpose of this MOU is to continue to develop and expand a framework of cooperation between AARC and KL7M to develop mutually beneficial programs allowing for AARC Board approval of an Internet Linking Radio Project (IRLP and EchoLink) system to be identified as IRLP/ EchoLink to be connected by KL7M to the AARC 147.27 repeater on Mount Susitna. This program provides continuous testing of the operability of IRLP/ EchoLink on the Susitna wide-area repeater system. In the event of technical problems with the 147.27 repeater, the nets are authorized to move to 147.33 MHz repeater at the discretion of the Net Manager and the Trustee.



#### STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

AARC benefits include an active partnership with KL7M to plan and maintain a functional link via IRLP and EchoLink from the Anchorage 147.27 repeater to other Alaska Amateur radio operators.

The benefits for KL7M through this cooperative effort are provided through use of IRLP and EchoLink as a public service to Alaska users of the 147.27 repeater.

The mutual benefit for both parties is to provide a public service via IRLP and EchoLink to the wide area coverage provided by the Susitna repeater. Ham operators from outside of the repeater area will be able to talk with users on the Susitna repeater providing an additional link for emergencies as well as ham radio fellowship.

#### AARC SHALL:

Work with KL7M to identify control operators for IRLP/ EchoLink use on the repeater.

Make access available for KL7M's IRLP system and EchoLink to link to the 147.27 repeater during agreed days and times. (Subject to FCC rules and regulations as well as repeater trustee and AARC Board of Directors interpretation)

Provide written documentation of this MOU to both parties.

Provide written documentation of days and times of operation to all parties involved such as Amateur Radio Emergency Services, Morning Road and Weather Net Control operators and the other nets involved.

Coordinate any special uses or administrative activities with all parties.

Review this agreement with KL7M no less than annually and modify as necessary.

#### KL7M SHALL:

Work with the AARC to identify appropriate IRLP/ EchoLink partnership opportunities and jointly pursue such projects in conjunction with the Repeater

Provide IRLP/ EchoLink education for designated control operators as necessary for safe and proper operation of the repeaters and the IRLP/ EchoLink link.

Provide control codes to all system control operators as well as the trustee(s) of the applicable repeater license(s) so they can shut down the IRLP and/or EchoLink link connection should any problem arise.

Provide technical assistance net control operators to assure smooth operation of IRLP/ EchoLink during designated operating periods.

Provide technical expertise to AARC to address technical problems as they arise. Make information on the technical details of the IRLP/ EchoLink service being connected to the repeater available to AARC technical committee as needed.

Obtain AARC Board of Directors approval prior to implementation of any additional days, time slots or technology changes/additions for IRLP/ EchoLink linkage to the repeater.

Program the IRLP/ EchoLink link to come up on the repeater and be disconnected at agreed upon times.

Encourage other ham operators to work with AARC officials to discuss and identify opportunities for cooperative work or mutually beneficial projects or activities, when appropriate.



# IRLP and AARC

IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

DATES and TIMES for IRLP/ EchoLink Links:

The days and times that IRLP/EchoLink linkage will occur are as follows:

- Calendar/Swap & Shop/Newsline - Thursdays – 8:30 PM to 9:30 PM
- Alaska Statewide Linked Radio Net – Sunday – 7:55 PM to 9:00 PM
- Morning Road and Weather Net – Monday – Friday - 8:55AM to 10:30AM Tuesday thru Friday and 8:55 AM to 11:00 AM Mondays
- The folNet Control Operators will develop successful scripts to use for the net to minimize out of State checkins. Scripts will be needed for the net preamble, for requests for checkins, for restated net purpose throughout the duration of the net, and procedures for handling non-Alaska out of state checkins. The details are left to the net manager but may be modified or rejected by AARC as required.

For example: A possible announcement might be: "Welcome to the Susitna Repeater Channel of the Alaska Reflector. The Mt. Susitna Wide-Area Repeater is owned by the Anchorage Amateur Radio Club. The use agreement with them limits users to past or present Alaska stations to meet the purposes of their repeater. Non Alaska stations are welcome to listen in. For more information check out <http://www.KL7AA.net>." Other scripts can be derived from this concept.

MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.

TERMINATION. Any of the parties, in writing, may terminate the instrument in whole, or in part, at any time.

*AARC Contacts –or their successors*

*KL7M Contact*

Kathleen O'Keefe, President, AARC

Dave Cloyd, KL7M

Phone: 907- 243-4675

Phone: 907-258-0066

E-Mail :President@kl7aa.net

E-Mail: decloyd@gci.net

Jim Larsen, Vice President, AARC

Phone: 907-345-3190

E-Mail: VicePresident@kl7aa.net

NON-FUND OBLIGATING DOCUMENT. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the cooperator of any contract or other agreement.

COMMENCEMENT/EXPIRATION DATE. This instrument is executed as of the date of last signature and is effective until one or both parties cancel it.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

Anchorage Amateur Radio Club

KL7M

Kathleen O' Keefe, President

Dave Cloyd

+++++

Several people have chimed in with their opinions. I have a very strong belief that everybody should be heard. One of those what comes around goes around.

I have received a couple emails on this subject, and want to publish those. I would like to point out that one is to the editor if AARC, so I have no qualms about publishing it here. The other was to the officers of the club, past and present. A past president replied very eloquently and stated things very well.

**Exhibit 2**

From Jim Larsen, AL7FS, Past President, AARC

(The quotes refer to the KL2AN email following the AL7FS remarks.)

"The net is a worldwide and statewide network that allows HAMS to access each other to share information internationally."

Rob doesn't know or understand that the MOU stated the net was NOT to be a worldwide international net. It was not supposed to even have out of state check ins. I can't say I am surprised at the abuse of IRLP and the MOU on 147.27.

"allows those who can't afford a spendy HF radio to DX worldwide." There are plenty of different IRLP nodes in the south central area. I am sure the net can be accommodated elsewhere. Also, hams with an IRLP interest can easily transition to these other repeaters for continued access to the world via IRLP and Echolink.

"it appears to those outside of Alaska that the Anchorage club is very small minded, and that DX stations on IRLP and Echolink are not welcome to communicate on your equipment."

That is in fact the intent. Out of state stations were never supposed to be on the Alaska IRLP net. It was for Alaska stations only. Dave Cloyd stated that he could not stop out of state stations and would not put any additional effort into the system to try to do so. AARC tried to accommodate this issue and eventually the camel pushed his way into the tent.

I have received concerns from ARES leaders who believe the IRLP was degrading 147.27 as an ARES emergency repeater. That can be debated but perhaps it is just as well the net go elsewhere. AARC can add IRLP itself if that is deemed a good thing to do for emergency use. The cost to do so would be minimal and may, in fact, be a good idea. Keep AARC in control.

Just today I received a comment that one ham did not like to listen to the net at times as it was often a large collection of poor signals and at times was not even run like a net. Certain hams were allowed to pop in whenever they felt like it with no controls on their usage of the net.

I support the Board's decision to move in a different direction with Emergency Communications and IRLP on the AARC emergency repeater system.

73, Jim

Jim Larsen, AL7FS

907-345-3190

# IRLP and AARC

Randy Vallee wrote:

It appears that a few people are unhappy about the removal of IRLP off of the AARC repeaters.

I would expect that an article needs to be written and published on the use and abuse of IRLP on the repeaters to clarify the position of the club.

Rob points out that the abuse of a few has spoiled it for many. What he failed to realize, the abuse of the few has affected the many when the few refused to adhere to suggestions to clean it up.

+++++

Begin forwarded message:

\*From: \*"Rob Stapleton, Jr." <k12an@arrl.net  
<[<mailto:robstapleton>>](mailto:robstapleton)>

\*Date: \*July 28, 2009 9:45:12 AM GMT-08:00

\*To: \*<editor@kl7aa.net <[<mailto:editor@kl7aa.net>>](mailto:editor@kl7aa.net)>

\* C c : \* < p r e s i d e n t @ k l 7 a a . n e t  
<[<mailto:president@kl7aa.net>>](mailto:president@kl7aa.net)>

\*Subject: \*\*Kicking AK Morning Net off the Susitna 147.270 repeater\*

To whom it may concern,

I am appalled that the ANC Amateur Radio Club has kicked the morning net off the 147.27 repeater. If there are issues why not take that up with the person/s at issue. The net is a worldwide and statewide network that allows HAMS to access each other to share information internationally. IRLP and Echolink are still part of this communication network and allows those who can't afford a spendy HF radio to DX worldwide.

I hope that you reconsider this as it appears to those outside of Alaska that the Anchorage club is very small minded, and that DX stations on IRLP and Echolink are not welcome to communicate on your equipment.

Respectfully,

Rob Stapleton, Jr.

Anchorage, AK

KL2AN

Skype:rob.stapleton.jr

N31342

[www.alaskafoto.com](http://www.alaskafoto.com) <[<http://www.alaskafoto.com>](http://www.alaskafoto.com)>

I even have an email from a G-lander who, since the hearing the news has become distraught over the idea of the removal of IRLP from the AARC repeater. I will leave his name and call off, since it was to the president and vice president of the radio club. He states a good case.

## Exhibit 3

I am truly saddened that the first time we communicate it is under these circumstances, I have to say that I am indeed very impressed with the work the Anchorage Club does in the local community, Emergency Communications etc, your newsletters are very impressive, as is the club website.

I want you to know I am the Vice Chairman of (name removed), and have an understanding of club politics; LRS is one of England's oldest and possibly largest clubs.

I also understand the usefulness of local nets, and that sometimes these need to be exclusive.

However I do not understand the need of AARC to evict the IRLP and Echolink connection from the 27 Repeater.

You of course have the right to do so, but I hope you realise what this means to many stations from the other States, and to those from other counties such as the UK, and mostly to Alaskan stations, who have found the community of amateurs that congregate there to be uplifting, interesting and supportive to one and all.

A case in point is the support for Bob and Kathy, and the best wishes over the last few days for my wife Wendie when she underwent an operation, the weather warnings, bear sightings and other such good deeds and incidences of community spirit.

This I'm sure will continue on both the repeater and the IRLP and Echolink network, but to split the 2 different points of contact seems regrettably unfair.

It also appears to show a lack of vision, understanding and advancement, we have a fantastic hobby with many facets and opportunities, but it is a hobby that is shrinking and declining in achievements made by operators.

The competition for portions of the Radio Spectrum is intensive, and very very lucrative, and there is a lot of the Amateur Band unused, we will lose very large amounts of these frequencies if usage is not encouraged and increased, such encouragement is there in the linking of the repeater and the VOIP network.

It seems therefore shortsighted to deny access to any Amateur, and very wrong to exclude anyone solely because of where they come from!

You cannot know just how much I have been able to learn, new friends I have made, and my wife and I are now going to come to Alaska on vacation due entirely to the welcome found on the morning net.

The 9070 Reflector is the second most used on the system, again partly due to the welcome found on the morning net, including those on the 27 and 33 repeaters.

I have heard several Amateurs who I believe are AARC Members seemingly to support the morning net, on both the repeaters and the VOIP networks, so much so that I have to wonder as to why the Board of Governors seem to want to appose having VOIP on the repeater, against the majority view, and may I ask if the membership have been fully consulted? I only ask because so many seem to want the repeater linked to the VOIP.

I had until this week wanted to contact you (Having heard you on the morning net) about joining the club, and supporting it in anyway I can, but the news that the Repeater will no longer host the IRLP etc saddens me.

Am I really that unwelcome on the repeater, what offence have I caused you (the Governors), believe me, we would not want to exclude you from anything here in Leicester, and I in fact invite you to visit at any time, to call us, or contact us by any means.

Personally I think there has to be a way of settling any differences, but would hate to think that my presence on the net has in anyway upset or caused problems resulting in the VOIP being removed from the 27 Repeater, because until this news I had felt completely welcomed!

Anyway please forgive me expressing my feelings and thoughts in this way,

73 and Regards

(Name removed to protect identity).



## DISAPPOINTMENT

I, too, am saddened. These people and many others have put forth a great case to keep IRLP. What is totally missing from all this, is the original intent for the 147.27 and 147.33 repeaters. They are under the license of Alaska ARES. Look it up. The original intent was to be able to provide area wide communications in the event of an emergency. After all, our motto is **“Amateur Radio. When all else fails”**.

Having been born before statehood in Alaska and raised in Alaska, I very much understand the need for reliable, effective communications in an emergency. I worked in bush Alaska for almost 30 years, traveling all over. I have a pretty good idea of rough conditions. I can remember when villages had only 1 phone, and sometimes it even worked. There was no TV for many years, and people communicated face to face. You depended on the HF radio installed in the BIA schools for communications when the village phone was down. Believe me that happened often enough.

I must admit, I have only been a Ham since 1993, but in those years, I have learned a couple things. Even my wife to be knows these things and she just got her license.

First, when communicating, courtesy to others is of utmost important.

Second, if asked to change your tone, words or incantations of those words, you did it, because it is required by the FCC in Part 97. If you didn't follow those suggestions, you risked losing your license and possible fine.

The story at the beginning of this document was related to me through others. The authenticity of it is unknown to me personally, but the validity of it is good enough, as the persons giving it to me are considered by me to be reliable.

As the elected leader of the club, it is my responsibility to insure its assets are being used wisely, compliant with FCC Regulations and within the spirit of Amateur Radio.

Over the past month, I have had many complaints about problems with the IRLP use on the 147.27 repeater. Not wanting to jump harshly, it was placed on the agenda for the July Board Meeting.

After much discussion, it was unanimously decided the IRLP would be removed from all repeaters that AARC owned and operated.

## REASONING

First and foremost, it is a repeater with a primary intent of emergency communications. It was felt that the use of IRLP would degrade the equipment to the point that in the time of need, it may not be able to handle the necessary communications requirements.

Second, many felt the persons acting as control operators for the linking of IRLP, did not operate it effectively enough, and often lost control of things. When it was pointed out that certain things were offensive, they were not responsive to those needs.

I want to add in here, that words are subjective. It all depends on the person. What I find acceptable, you may find offensive, and vice versa.

Third, there are many IRLP nodes here in Anchorage, and even more in the Matanuska Valley. While the 147.27 was off the air for an extended period recently, IRLP and the nets that normally occur did not cease to exist. It merely moved to a simplex frequency or an IRLP repeater and continued its happy life.

Fourth, there exists some question as to the legality of having IRLP on repeater systems depending upon the method in which they are assembled. There are many discussion groups entertaining this very idea, and neither the FCC nor the ARRL have come out with a position on this.

## CONCLUSION

So where does that leave us?

Currently, we will not allow IRLP, or any derivatives, to be used on the repeater systems under normal operations. That leaves us with the ability to still link it in to a repeater in the event of an emergency. I believe that in the future, AARC will endeavor to establish its own IRLP node that it operates for emergency purposes.

To quote the above words again. **“Amateur Radio. When all else fails”**.

With all the harsh words being spread and all the animosity being put forth about the efforts of AARC officers to maintain a healthy club sponsored repeater system for South Central Alaska, I have to wonder, who else has bellied up to the bar and built repeater systems to attempt to survive the next major catastrophe and provide the necessary communications? Who among you are willing to take the weight on your shoulders and believe in **“Amateur Radio. When all else fails”**?

Randy Vallee, KL7Z  
President AARC

# Comment forum:

Email to editor@kl7aa.net

For anyone who says the club decision 'is just politics' they are wrong. This phrase is used as a cop out and idiom meaning they are unwilling and avoid taking responsibility for an action or to avoid fulfilling a responsibility. Bottom line no operator has the right to put down or defame another on the air. That is not the spirit of amateur radio. If the operators would not use vulgar language perhaps they would be allowed to return. I'm glad the board removed the inconsiderate operators.

++++++  
Good riddance to bad rubbuge; no one really noticed. To bad, so sad, next window please...  
++++++

On the morning net.

The way it has migrated into a IRLP/Echolink world wide group is the reason I do not 'check in'. In the past when we had a short net on the rprr about satellite, radio and good discussions I would participate. Since they went to International radio (VOIP) I lost interest.

I get so tired of hearing The self proclaimed IRLP guru making his self righteous statements about how there is no other way to communicate. His dedicated followers bow and give him praise every day. I used to keep repeaters on scan at home but they would always stop on the VOIP. The same folks on them. I now just turn to the repeater I want to monitor.

I have always thought they should go to IRLP only and the net could be run there freeing up the rprr. They have enough nodes out there since they seem to be mass producing them.

I have respect for the net controllers.

Just wanted to express my opinion.

++++++  
If you do good, people will accuse you of selfish, ulterior motives **Do good anyway**  
++++++

You can look up anything you wish to know about IRLP node on [www.irlp.net](http://www.irlp.net) under node information. Dave has built and extensive network on IRLP and it has a growing following with the morning nets and Sunday evening net. It is certainly a valuable resource for emergency communications. I have pasted in a listing of all the nodes connected during the net on Sunday night from the same web site which is pretty impressive!

++++++  
They ordered the one node up there to stay were it is and don't dare put it on any of their repeaters. Sounds logical. They despise IRLP and see for what it is, a crutch for hardware technician operators who can't work real ham radio, his words but I agree. I'm all for the IRLP on their own freqs. If you want to use it go to that freq to use it but keep it off the main repeaters. They can have state wide nets just on IRLP or Echo link. Myself I don't understand why they have to go to the main repeaters, there are enough nodes in the area that the main repeaters are not necessary for coverage.  
++++++

A good example of IRLP has been BOB, KL3BD on the mountain being able to talk to people including his wife in KOTZEBUE via the nodes

++++++  
We have invited KL7M out to the club meeting to give us information and training on the IRLP nodes, use, access and requested a list of the freqs and access codes. He has

ignored our request. I have emailed him and asked for the same thing. We would like to see the foot print and freqs set up and if they are repeaters or simplex nodes. This way we can incorporate them into our emergency plan, so if they are operational we could possibly use them. Again he won't answer my emails.

I have checked with the Freq Coordinator and Mel has no listing for the Node Freqs. We are really trying to work with the IRLP folks so we can utilize the system correctly and effectively. We have also asked what the procedures are or how he links into the various repeaters, so that we can see how effective this would be for emergency ops.

++++++  
9/7/2007

To: Officers, ARES-DEC and 147.27 Trustee:

I am about to notify Dave Cloyd, KL7M to cease Echolink and out of state contacts on the 147.27 repeater. Neither were authorized in our Board approved MOU. There are already multiple IRLP repeaters in south central Alaska to handle out of state QSOs. While I was the one who helped convince a skeptical Board to try this I was concerned that once the door had been cracked open, there would be a slow push to force it wider. This appears to be the case.

Please turn on View Comments in your MS Word when you view the attached MOU.

In addition, I will ask the two net control operators to change their preamble as well as their method of asking for checkins. I will ask them to eliminate echolink and out-of-state requests for checkins and I will have them state the purpose of the IRLP is to encourage checkins within the state of Alaska (per MOU). Out of state checkins are not encouraged. This will help until Dave can comply with the technical side of the MOU.

++++++  
Please put me on record that I am not against IRLP or Echolink. I do, however, feel that the current net control operators of ANY net should discourage out-of-state or non-Alaskan call sign check ins. It would be rude not to recognize any radio operator attempting to check in, however, the net control operator should probably not include them when going back through their list (the current practice of the Morning net control operators) of current check-ins. The current net control operators have the ability to connect and disconnect to Dave's equipment.  
++++++

My current work schedule doesn't allow me to participate in the morning net on many occasions, but when I have been able to participate, I haven't heard the additional modes of contact (IRLP and EchoLink) cause any problems. These modes have allowed for our traveling members and local hams to have a way to maintain contact at the local level. The net controllers have always operated the nets very professionally and seem comfortable with the additional contacts.

With the constant evolution of technology, one answer might be that since we will have DSL into the ham shack, that we purchase and maintain our own IRLP reflector and node which would allow a stricter method of allowed connections and also be available for member use at other times.



# Comment forum:

From the perspective of the trustee and main control operator of both the Susitna and Grubstake repeater systems, the primary concern is that the operation of these systems conform to FCC rules. The use of IRLP and Echolink does not appear to violate any current regulations, nor have I personally observed any repeated or growing amounts of behavior (on the air operation practices) that might raise concern. There have been a few such instances, but the peer pressure of the existing users has so far kept a "lid" on these issues.

That being said, however, I am not and have never been in favor of out of state check-ins on these systems via either of the two commonly used Internet linked modes. Even considering the fact that at least one former AARC club member uses these links to check in to one or more nets, and that some Alaskan hams have maintained contact via Internet modes while vacationing in other areas, and that in case of an actual emergency having connectivity via the Internet to stations in the "South 48" might be a very useful thing, I am still not in favor of encouraging this practice.

However, I feel that having stations in distant (radio wise) parts of our state check in to these various nets can be and probably is a useful thing. Such connectivity allows us to practice emergency skills, helps to familiarize operators with each other, and brings the entire state a sense of belonging to one community. The skills gained while operating in-state links will serve adequately to quickly expand the scope of such operations should an emergency situation present itself. Also, as the number of "no-code" general class operators increases, I would hope that participation in the "repeater nets" would eventually translate into similar participation in the various HF nets that operate statewide on a daily basis.

When I argued before the Board to allow IRLP (the board did not want to do it), little did I realize the camel dangers. The hours have already been expanded to some degree (with justification) and for those purposes that IRLP was allowed on the repeater it is working and working well. Every couple of months somebody wants to expand the coverage of the net or the hours. IRLP is not the purpose of the AARC repeaters. There are others in the area who dedicate themselves to converting repeaters to IRLP.

IF the net control used the words "the AARC Board Discourages check-ins from non KL7 Stations" then that particular net control did not comport himself in the way that the board has suggested. Those exact words are somewhat of a public put-down to the AARC Board and not necessary. There are other ways to say the same thing. Was there a new net control on the air that day?

Our state and our south-central area already has echolink and IRLP repeaters. In my opinion we don't need more of them. Once a repeater is opened up to IRLP, it is no longer under full local control as everyone in the world controls a piece it to some degree even if we are running a net. I receive approximately 2-3 emails asking to eliminate IRLP from Mount Susitna for every one that I receive asking to expand it. It is taking up club time on an ongoing basis. Let's face it, no matter what position we take, somebody will disagree.

Can I just plead ignorance? I don't have any involvement.

As for the repeater/VoIP linking nets, I suggest that Alaskan hams, especially the net controls, NOT run them via the Internet -- you now know the results of such actions -- improper, bordering on illegal operations have and could continue to result.

Besides, it's just discourteous to those wishing to only locally operate via direct RF. I say, if Alaskan hams wish to operate VoIP-based Inet links, perhaps they should restrict themselves to distant, out-of-touch repeaters -- not local ones -- where their own RF ham stations provide direct access. VoIP Internet connection is NOT direct access -- but INDIRECT access

Heck, why don't they just cut out the RF radios altogether? Some of those Inet "ham-related" voice chit-chat rooms exist already.

The biggest problem most people have with IRLP besides the whole internet use issues and the fact that it is not really using radio but using a computer is the legality of who is the legal control operator as defined by the FCC? When you are net control on a repeater, you are the control operator. With IRLP it leaves open as to who is the control operator, the user, the node owner, the server owner etc..... Lots of blogs and comments out there on the net about this topic.

I've found a home for the two IRLP nodes we've spoken about.

## KL3K IRLP NODES in SOUTH CENTRAL

Houston, AK	147.55 Mhz	123 PL
Palmer, AK	147.53 Mhz	123 PL
Anch, AK	147.49 Mhz	123 PL
MP 90 GLENN HWY	147.51 Mhz	123 PL
GIRDWOOD, AK	147.52 Mhz	123 PL

From the Net Manager:

The Morning Net is a repeater based Net and will remain a repeater based Net. However due to the current situations with the repeaters and recent reliability issues we are currently experimenting with a back up plan that will maintain the same coverage of the Morning Net in the event the 147.27 and the 147.33 repeaters are down. Thus, we are announcing alternate frequencies on simplex IRLP nodes within the repeaters range that can be used in that event.

The experiment will be conducted during the month of June. Each Wednesday in June 2009 the Morning Net will be on the IRLP and Echolink only. That way our listener's can program their radio's with additional IRLP frequencies and check into the Net on those modes in the event the repeaters are unavailable. Thus, we are training Net Control and it's listener's to check in on those modes as a back up only to the repeater's. If you have any questions you can contact me at al2b@alaska.net or (907) 283-1958.

As with any new technology, it does take some time to adopt to operating procedures that differ from conventional FM repeater use. This work in progress can serve as a guideline for those wishing to use their local IRLP enabled repeater node.





# MOTLEY PICNIC



**Jim, KL7JM's 75 M Bug Smashing antenna**  
**Camp Fire with some of the Motley crew**  
**WL7CAD modeling the 2009 Motley sweatshirt**  
**NL7TZ's best side**  
**Below: Black Beauty: the annual symbol must be modified each year and returned to the auction of prizes.**



**The Motley Net takes place each evening at 9PM AKST and is open to all ham operators.**  
**The Motley Picnic takes place generally on the last full weekend in June at Byers Lake Campground on the Parks Highway. All ham operators are welcome to attend!**



# KL7AA Board Meeting Minutes~ August 2009

## AARC Board Meeting Minutes

August 18, 2009

540 West International Road  
Anchorage AK

The meeting was called to order at 7:00 pm by President Randy Vallee KL7Z. A quorum was found to be present.

### Board Members Present:

President Randy Vallee KL7Z, Secretary Paul Spatzek WL7BF, Treasurer Calex Gonzalez KL2BT, Michael O'Keefe KL7MD, Eric McIntosh KL2FM, John Orella KL7LL, Tom Rutigliano NL7TZ, Sean Jensen KL2CO, Kathleen O'Keefe KL7KO Dave Koch KL2OS.

### Excused:

Vice-president Heather Hasper, KL7SP, Activities Chairman Pat Wilke WL7JA, board member Bruce McCormick KL7BM, Hugh McLaughlin KL7HM

### Non Voting Members Present:

Trustee Keith Clark KL7MM, Membership Chairman Fred Erickson KL7FE

### Visitors:

Rich Gillin KL2RG

### Reports:

#### Secretary:

The minutes were approved for July 21 2009 Board of directors meeting as well as the August 7 2009 Membership meeting. Kathy O'Keefe KL7KO motioned for approval with John Orella KL7LL seconding

#### Treasurer:

The gaming funds are low and the treasurer recommends no large expenditures of funds. Eric McIntosh KL2FM motioned for approval with Sean Jensen KL2CO seconded.

### No VE report

### Trustee:

The club station was used for a contest with respectable results on 20 meters from 1000 to 1900 until the bands went dead.

### Membership:

336 on the roster of which 319 are licensed ham operators. 33 members have not renewed from last year with 28 new members for a loss of 5 so far this year.

### Activities:

No activity report

### Ares Training:

Nothing scheduled until September

### Real estate:

Nothing currently in the works.

### Garage security:

In the works with members busy with other things

### CCV Leveling Jacks:

The mechanism was repaired and measures were taken to ensure a repeat of the damage does not occur.

### Grubstake:

Anticipated that system will be operational by the end of the month with a work party scheduled.

### State Fair:

Work party scheduled for Saturday August 22<sup>nd</sup> at 0900. We'll be taking the Tent and AARC power/tower trailer.

### Hamfest:

Set for the 19<sup>th</sup> of September. Country store volunteers were added and setup crew was added.

### Approvals for KL7AA:

Possible for the State Fair.

### Ham Classes:

29 people so far with more interest and inquiries every day.

### IRLP:

There was a discussion of the IRLP transition, with Heather and Randy's 11 page position paper explaining the position of the club regarding IRLP.

Meeting was adjourned at 1942 by Sean Jensen KL2CO's motion with Randy Vallee KL7Z seconding.

Respectfully submitted,  
Paul Spatzek, WL7BF  
Secretary AARC



# AMATEUR RADIO

## KL7AA HAMSHACK

The KL7AA station is available for training in HF operations. Learn from an experienced HF operator about propagation, voice and Morse code modes as well as best practices and legal operations. The station is fully integrated with a PC and soundcard to operate in many digital modes. There are weekly contests to participate in even if just helping Hams all over the world gain points and multipliers to win awards.

Your club station is quite capable and has great ears. Club operators have made many QSO's with all modes on all continents. Recent activities have seen SSTV QSO with New Zealand, hearing a Fallujah Iraq operator on PSK, a 15 meter contact to Peru during the CQ WW Phone contest. Common contacts are made with the lower 48 states and Caribbean, Canada, Japan, Korea, Taiwan, China, Russia and islands in the Pacific.

Take advantage of this unique benefit! Arrange a session by contacting the club trustee, Keith Clark, KL7MM to meet at the KL7AA station on Rowan Street.



## 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:  
<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?"

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



### Are you a member of ARRL?



ARRL is the American Radio Relay League. This is the national organization that advocates on behalf of amateur radio operators to the FCC and the communications industry. **KL7AA** is an ARRL affiliated club with more than 50 years. Consider becoming a member of ARRL today.

For more information about the ARRL DXCC Program check out: <http://www.arrl.org/awards/dxcc/>

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**News Letter Submissions, Information or corrections:** Submissions must be received 2 weeks before meeting Email: [editor@kl7aa.net](mailto:editor@kl7aa.net)  
Mail: PO BOX 101987, Anchorage, AK 99510-1987

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**News Letter Submissions, Information or corrections:**  
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. Email: [editor at kl7aa.net](mailto:editor at kl7aa.net)

**The MODULATION TIMES** is the monthly newsletter of the Anchorage Amateur Radio Club, published by and for its members. The entire contents of this newsletter are copyright 2008 by the Anchorage Amateur Radio Club. Permission is hereby granted to any not for profit Amateur Radio Publication to reprint any portion of this newsletter provided both the author and Anchorage Amateur Radio Club are credited.



# Choose Your 2M Frequency Wisely

Bob Witte, KØNR

You've just purchased your first 2M FM transceiver and have been chatting with both old and new friends around town on the 2M band. You and your buddies decide to find an out of the way frequency to hang out on. After tuning around, you find a nice, quiet frequency that no one seems to be using and start operating there. Nothing to worry about, right? *Not so fast, there are a few more things to consider when selecting a frequency on the 2M band. Let's take a look at the key issues.*

## FCC Rules

The first thing we need to know are the frequencies that the FCC has authorized for our particular license class. For the HF bands, the frequency privileges depend greatly on the license class of the operator. Above 50 MHz, the frequency allocations are the same for Technician licenses and higher. In particular, the 2M band extends from 144 MHz to 148 MHz. The FCC Rules say that any mode (FM, AM, SSB, CW, etc.) can be used on the band from 144.100 to 148.000 MHz. The FCC has restricted 144.0 to 144.100 MHz to CW operation only.

## Band Plans

Knowing the FCC frequency authorizations is a good start but we need to check a bit further. Amateur radio operators use a variety of modulation techniques to carry out communications. Often, these modulation techniques are incompatible since a signal of one type can't be received by a radio set to another modulation type. For example, an SSB signal can't be received on an FM receiver (and vice versa). We need to use our authorized frequencies wisely by sharing the band with other users and avoiding unnecessary interference. Thus, it makes sense to have a *band plan* that divides the band up into segments for each type of operation.

## 2M Band Plan

As shown in the table, the 2M amateur band plan supports a wide variety of radio operation. Large portions of the band are dedicated to FM operation, consistent with the popularity of the FM mode. There are portions of the band designated for repeater *outputs* (which is the frequency that we tune to receive the repeater) and repeater *inputs* (which is the frequency we transmit on to use the repeater).

Notice that these segments are positioned 600 kHz apart consistent with the standard 2M repeater offset. There are also frequencies designated for FM simplex.

On the low end of the band, we see segments for some of the more exotic modes. At the very bottom is the CW portion, which includes Earth-Moon-Earth (EME) operation. EME operators communicate by bouncing their signals off the moon.

144.00-144.05	EME (CW)
144.05-144.10	General CW and weak signals
144.10-144.20	EME and weak-signal SSB
144.200	National calling frequency
144.200-144.275	General SSB operation
144.275-144.300	Propagation beacons
144.30-144.50	New OSCAR subband
144.50-144.60	Linear translator inputs
144.60-144.90	FM repeater inputs
144.90-145.10	Weak signal and FM simplex (145.01,03,05,07,09 are widely used for packet)
145.10-145.20	Linear translator outputs
145.20-145.50	FM repeater outputs
145.50-145.80	Miscellaneous and experimental modes
145.80-146.00	OSCAR subband
146.01-146.37	Repeater inputs
146.40-146.58	Simplex
146.52	National Simplex Calling Frequency
146.61-146.97	Repeater outputs
147.00-147.39	Repeater outputs
147.42-147.57	Simplex
147.60-147.99	Repeater inputs

Further up the band, we see segments for SSB operation and beacon operation. SSB is the preferred voice mode for so-called "weak signal" operators. The mode is more efficient than FM when signals are weak, so it is the way to go when you are trying to push the limits of 2M DX. Beacons are transmitters that are always on, transmitting a short CW message as a propagation indicator for distant stations. We often think of 2 Meters as a local coverage band but when conditions are right, contacts can be made with stations over a thousand miles away. Of course, conditions are not always right so having a beacon on the other end of the desired communication path lets you know how propagation is in that direction.

Radio amateurs also use 2 meters for OSCAR satellite operation, sending signals *to* a satellite (uplink) or receiving signals *from* the satellite (downlink). The OSCAR segments don't specify a particular modulation type since CW, SSB and FM are all used for OSCAR operation. Because of their elevation above the earth, satellites can hear signals from all over the US simultaneously, so they are very susceptible to interference.

Most of this non-FM operation can be easily interfered with by signals from other users. EME signals, for example, are usually quite small since the signal has to make the round trip from the earth to the moon and back. If a local FM operator fires up in the EME portion of the band, an EME signal that can't be heard by an FM receiver can be wiped out by the FM signal. Similarly, an operator chatting across town on 2M could interfere with a satellite hundreds of miles away and not know it. This is particularly a problem with FM receivers, which won't even notice low level CW and SSB signals.

### FM Operating

The most common 2M rigs are basic FM mobile or handheld transceivers. These radios usually tune the entire 2M band from 144 MHz to 148 MHz in 5 kHz steps. The band plan indicates the proper range of frequencies for FM operation but there is more to the story. FM operation is "channelized", meaning that specific 2M FM frequencies are identified by the band plan. The use of channels is especially important for repeaters, since they don't easily move around in frequency and are coordinated to minimize interference. The idea is to have all stations use frequencies that are spaced just far enough apart to accommodate the signal without interfering with the adjacent channels.

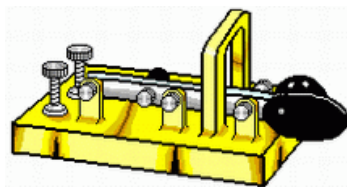
You might think that the spacing between channels would be 5 kHz, which is the tuning step of most FM radios. This doesn't work because an FM signal occupies a bandwidth that more than 5 kHz wide. Even though we talk about a signal being on a specific frequency, the signal actually spills out on either side of the frequency by about 8 kHz. This means that a typical FM signal is about 16 kHz wide.

(You may recall that amateur 2M FM uses  $\pm 5$  kHz frequency deviation. So doesn't this mean the bandwidth is 10 kHz? No, it doesn't work quite that way and the signal is actually wider than 10 kHz. I might be able to show the math behind this but it makes my head hurt. Perhaps in some future article.)

The channel spacing needs to be at least as wide as the bandwidth of the signal, which allows room for each signal without interfering with the adjacent channel. In Colorado, the channel spacing is 15 kHz, which is a bit tight for our 16 kHz-wide signal. In other parts of the country, a 20 kHz spacing has been adopted to provide for more separation between channels. Obviously, you get more channels on the band with 15 kHz spacing than with 20 kHz, but you have to put up with more adjacent channel problems.

When using a repeater, you just need to dial in the published repeater frequency and set the transmit offset, either + 600 kHz or - 600 kHz. Most modern 2M radios automatically take care of setting the proper offset (based on the band plan). If you need to set the offset manually, the rule is very simple. If a repeater's output frequency is in the 147 MHz range, it uses a + 600 kHz offset. Otherwise, it requires a - 600 kHz offset. For repeaters that require a CTCSS tone for repeater access, you will have to set the proper tone frequency on transmit.

For simplex operation, the standard simplex frequencies listed in the table below should be used. These simplex frequencies are grouped in the 146 MHz and 147 MHz range as listed in the table below. The National Simplex Frequency (also referred to as the calling frequency) is 146.52 MHz.



**When all else fails...**



### The FCC View on Band Plans

Sometimes I hear radio amateurs say, "Band plans are voluntary so I don't need to pay any attention to them. I can do whatever I want as long as I don't break the FCC rules." Unfortunately, such an attitude does not promote efficient use and sharing of the amateur bands. Imagine the chaos on the ham bands if everyone took this approach. It also may be a violation of FCC rules.

On Oct 18, 2000, in a ruling concerning a repeater operator's failure to conform to the prevailing band plan, FCC Special Counsel for Amateur Radio Enforcement, Riley Hollingsworth commented on the issue. He said "Band plans minimize the necessity for Commission intervention in Amateur operations and the use of Commission resources to resolve amateur interference problems. When such plans are not followed and harmful interference results, we expect very substantial justification to be provided, and we expect that justification to be consistent with Section 97.101."

Section 97.101 is the part of the FCC rules that says (among other things):

- *In all respects not specifically covered by FCC Rules each amateur station must be operated in accordance with good engineering and good amateur practice.*
- *Each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the amateur service frequencies.*

The FCC has clearly stated that they expect hams to share the bands by following accepted band plans. More importantly, this is the right thing to do for the benefit of the amateur radio service.

#### Summary

The fine points of the band plan can be a bit confusing. However, a few simple guidelines can help, especially if you are operating only FM.

- FM voice simplex and repeater operation should occur only above 145.100 MHz (and only in the OSCAR subband if you are working an FM satellite)
- When operating through a repeater, make sure you are tuned to the published repeater frequency with the proper transmit offset.
- When operating simplex, use a simplex frequency designated by the band plan.

We've only covered the 2-Meter band in this article. If you are operating on other bands, be sure to check the appropriate band plan before transmitting.

### 2M FM Simplex Frequencies

<b>146 MHz Range</b>	<b>146.400, 146.415, 146.430, 146.445, 146.460, 146.475, 146.490, 146.505, 146.520, 146.535, 146.550, 146.565,</b>
<b>147 MHz Range</b>	<b>147.405, 147.420, 147.435, 147.450, 147.465, 147.480, 147.495, 147.510, 147.525, 147.540, 147.555, 147.570, 147.585</b>



## BARK Update



*The Board of AARC approved a \$2,460 grant request in July for the Bethel Amateur Radio Klub, AL7YK.*

*BARK members gather to show their appreciation to AARC and its members for their generosity.*

Last night we had our monthly BARK meeting and had a big turnout. We continue to plan the build out of an APRS in Bethel. Everyone was very excited about the grant from the KL7AA club, thank you.

Thanks to your grant we hope to have the APRS network set up in time for the hospital's Mass Influenza Dispensing clinic in October. This will be the 4th year BARK has provided communications and we're eager to add the packet communications to the voice capabilities. We'll send you some pictures of that event to show we're putting your generous donation to good use.

Thanks again, we are very grateful.

Joseph Seibert - AL1F

BARK President, KYUK Chief Engineer



# KL7AA ELECTION:

## **AARC Election of Officers and Directors**

### **ARTICLE VI PROCEDURE FOR THE ELECTION OF OFFICERS AND DIRECTORS**

The Voting Members shall elect the officers and directors of the corporation by majority vote by submitting written ballots designating their choice of officers and directors prior to October 31<sup>st</sup> of each year. The procedure for election of the officers and directors shall be as follows:

**Nominations.** The Election Committee shall nominate individuals for the open officer and director positions at the regular meeting of the members in September. Members of the corporation may also nominate individuals to run for election as officers and/or directors at the September meeting. Such nominations must be seconded by two members and have the nominee's consent.

**Eligibility.** A member may not hold two elected offices concurrently.

**Distribution of Ballots.** The Secretary shall prepare and distribute one ballot to elect officers and directors to each Voting Member whose address of record is within the state of Alaska on or before October 1<sup>st</sup>. Voting Members shall not be permitted to vote by proxy.

**Return of Ballots.** Completed ballots must be returned to the Secretary on or before October 31<sup>st</sup> to be counted.

**Tabulation.** The Secretary shall present the sealed ballots to the Election Committee to open and tabulate.

**Results.** The Election Committee shall determine the results of the election and announce the new officers and directors at the November regular meeting of the members. In the event of a tie, resolution shall be decided by a coin toss.

### **Timetable**

## **Anchorage Amateur Radio Club Rules of Procedure**

### **Paragraph III: Elections**

**Section A:** Election of Corporation officers and Directors shall be by written secret ballot.

**Section B:** Nominations, election procedures, and timing of the elections shall be as follows:

July, 2009 - AARC Board Meeting. The election committee of Heather Hasper KL7SP, Eric McIntosh KL2FM, and Paul Spatzek WL7BF, was established with Paul Spatzek, Secretary as Chair.

August 7, 2009 – The election committee will be announced to the membership. Committee Chairman will address members on the procedures and timetable. This will be done via the AARC newsletter as approved by AARC Board of Directors as there will not be a membership meeting in August.

September 4, 2009 - Membership meeting. Election committee presents slate of candidates to the members. Additional nominations will be accepted from the floor. After receipt of additional nominations, if any, nominations will be closed.

October - The Secretary shall prepare and distribute, by mail or otherwise, one ballot to elect officers and directors to each eligible member, as defined in the Bylaws, on or before October 1<sup>st</sup>. Ballots must be returned to arrive by October 31<sup>st</sup>.

November 6, 2009 – Membership meeting. Prior to the meeting, the Election Committee shall count ballots and determine the result of the election. In the event of a tie, the winner shall be determined by a coin toss. At the meeting, the Chairman of the Election Committee shall announce the new Officers and Directors.

November and December 2009. The newly elected Officers and Directors attend Board meetings as non-voting participants.

January 1, 2010. Newly elected Officers and Directors assume duties as of January 1

**Section C:** Election of Officers shall be by majority vote of members voting.

**Section D:** Only members in good standing as of the close of the September Member Meeting shall vote. The Membership Chairman shall notify the Secretary, prior to October 1, of the members eligible to vote.

**Section E:** Only ballots received by October 31<sup>st</sup> shall be counted. Ballots shall be delivered to the Secretary, by mail or otherwise, and submitted by the Secretary to the Election Committee.

## 2009 AARC Election Committee Report

We have finalized the counting procedure/process for this election utilizing the Call Process.

This committee encourages members to get involved with their organization and to help direct the future of amateur radio by being nominated for positions on the Anchorage Amateur Radio Club Board of Directors.

We have the following positions up for election this year.

⇒ Activities Manager (1 Year term)

⇒ 3 year Board position (1)

⇒ 1 year Board Positions \*

\*(8 positions open)

The Election Committee will, as required by the by-laws, present a list of candidates who have indicated a desire to be placed on the ballot to the membership at the September membership meeting, where additional nominations may then be made from the floor by AARC members and must receive 2 seconds and have the nominee's consent. The September meeting will be held on the 4<sup>th</sup> of September at the APU meeting location at 7pm.

Per the Rules of Procedure. **Only members in good standing as of the close of the September Member Meeting shall vote.** Ballots are mailed to each member paid in full by 10/01/09 whose address of record is within the state of Alaska. Watch for your ballots in the mail in early October and remember all completed ballots must be received by October 31st. If you do not have a current membership, please see Fred Erickson, KL7FE at the September meeting to renew or renew your membership by mail.

Thank you for your participation and good luck to those seeking office this term!

***Below:** A view from the top of Mt Su looking off the backside towards the Alaska Range in winter.*

Every radio station must have a control operator (97.103). You normally operate your own station, but during contests, Field Day, and during net operations on repeater systems where another call sign is assigned to the repeater, you often operate using someone else's station. You, the licensee, are responsible for all transmissions from your station. During contest or nets many amateurs often use a single call sign, so the station licensee must designate a control operator(s). Both the station licensee and the control operator are equally responsible for all transmissions (97.103(a) and (b)). When you, the station licensee, designate others as control operator, you should make a note in your log book. Ham operators are no longer required to carry a photocopy of your license whenever you are the control operator of a station, but it's still a good idea.

### **What is the identification procedure for a club station license?**

A club *station* license carries no operator privileges. The person operating the station must use his or her own privileges. If operation takes place in the Extra class part of the band, a Technician, for example, can use the station, but only if an Extra class control operator is present at the control point monitoring and supervising the operation. This does not necessitate the use of the supplementary station ID as mentioned in Section 97.119(e).

The ARRL *is not* a Frequency Coordinator, nor does the ARRL "certify" coordinators. Frequency Coordinators are volunteers normally appointed by a coordinating body. The ARRL reports only the fact of coordination or non-coordination as instructed by the coordinating body. Publication of coordinator information by the ARRL does not constitute nor imply endorsement or recognition of the authority of such coordinators, as coordinators derive their authority from the voluntary participation of the entire amateur community in the areas they serve. Frequency Coordinators keep extensive records of repeater input, output and control frequencies, including those not published in directories (at the owner's request). The coordinator will recommend frequencies for a proposed repeater in order to minimize interference with other repeaters and simplex operations. Therefore, anyone considering the installation of a repeater should check with the local frequency coordinator prior to such installation to ensure no interference with systems already in place that you might not be aware of as well as to ensure your own investment as repeater systems can often be an expensive investment.



## RADIO LAW: YET ANOTHER ANTI-PRIVATE REPEATER PETITION

Ham radio history is once again repeating itself. This as a Washington D.C. area ham becomes the latest to say its time to outlaw all closed and private repeaters and has asked the FCC for a rules change to outlaw these type of systems. And in a recent interview Murry Green, K3BEQ, of Cheverly, Maryland, explained what he is asking the regulatory agency to do:

"I've asked the FCC to change the rules to prohibit limiting the use of frequencies used by closed repeaters directly or indirectly except where a user blatantly violates the Commissions rules."

Green stated that he's taking this action because he believes that the spectrum used by repeaters really belongs to all radio amateurs and that the claim by closed repeaters that limiting access helps share the financial burden has little merit:

"Closed repeaters and its regulated frequency should be open to all amateurs having the proper class of licensee and not on a pay for use basis. Voluntary contributions work for the large majority of open repeaters throughout the United States. It can work for closed repeaters provided users are given that opportunity."

Green also appears to see closed and private repeaters as both discriminatory and a violation of the FCC's rules:

"Its not a closed society. Its not an elitist group. You simply can't discriminate. And also it violates the FCC rules which state that frequencies are to be regulated effectively and used effectively. If you have an elitist group that's discriminating on who can come in, its wrong. It's simply wrong. Its not amateur radio."

Green is not the first ham to file a rules change request asking the FCC to outlaw closed and private repeaters. Since 1977 there have been at least 6 similar petitions, and maybe more. All of these were denied for the same reasons. First is that the FCC does not recognize the terms open, closed and private in regard to repeaters. To the FCC, a repeater is a repeater and the words open, closed and private are nothing more than ham radio terms that you will not find in the rules.

Recently as last May's Dayton Hamvention FCC Forum, the agency's rules man, Bill Cross, W3TN, reiterated the FCC long standing position that is not in any way discriminatory for a repeater owner operator to be selective in whom he or she chooses to repeat:

Bill Cross, W3TN: "One of the common misunderstandings is that amateur radio repeaters are not common carrier systems. There is no duty to serve on a non-discriminatory basis.

"If you want to limit it (access to a repeater) to people in a DX club, that's fine. If you want to limit it rush hour messages that are going to be traffic related or mobiles get priority, that's fine.

**"You put the repeater up. Its yours to run and (its) your obligation to control it and limiting it is allowed."**

It is not known if the FCC will assign a Rule Making designation to the K3BEQ rules change request or simply dismiss it as being non relevant based on past proceedings. After all, if the regulatory agency does not even recognize the existence of closed and private repeaters as separate and distinct entities, how can it act to make a rule to make them go away. (ARNewsline™)

### **OPEN or CLOSED repeater:**

Bill Cross: It is the repeater owners **OBLIGATION** to control the use of the equipment when others are breaking the rules.

## CLUB COATS

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. For those of you interested in purchasing a coat, the costs are **\$75 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. Must have a current club membership.

If you are interested in ordering a coat, a sign up sheet will be available at the club meeting or feel free to contact Craig Severson, KL2FN; [chipman@clearwire.net](mailto:chipman@clearwire.net)



714



ARES DISTRICT 7 & 5  
KL7AA & KL7JFU



**8/27 - 9/7**

### ALASKA State Fair

Contact John Lynn, KL7CY  
johnlynn@gci.net

**9/12 - 9/13 MS 150**

### Ride to Seward

Contact Allen Abbott, KB1QCE  
allenabbott90@msn.com

**9/8 - 10/1 HAM Class**

### Technician Class

Contact Doug Myers, KL1DJ  
kl1dj@arrl.net or  
instructor@kl7aa.net

**9/12** Emergency Preparedness  
Fair

Contact Heather, KL7SP  
kl7sp@arrl.net

**9/19 AARC HAMFEST**

Contact: Dave Koch, KL2OS  
kl2os@arrl.net; 9AM - 4PM

### ARES NETS:

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



# September 2009

Anchorage Amateur Radio  
Club  
PO BOX 101987  
Anchorage, AK 99510-1987

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

sun	mon	tue	wed	thu	fri	sat
6 	7	8 <b>HAM CLASS</b>	9 MARA Board Meeting 7PM	10  <b>HAM CLASS</b>	11  AARC meeting 7PM	12 <b>MS 150 PARKA</b> Meeting 11 AM
13 <b>MS 150</b>	14 	15 AARC Board Meeting 7PM <b>HAM CLASS</b>	16	17  <b>HAM CLASS</b>	18	19 <b>AARC HAMFEST</b>
20	21	22 <b>HAM CLASS</b>	23	24  <b>HAM CLASS</b>	25  MARA meeting 7PM	26
27	28	29 <b>HAM CLASS</b>	30	Parka, meets at Denny's on Denali at 11AM Contact: Lil Marvin NL7DL, 277-6741 EARS: R1 North, Third Saturday of each month Contact: Ron Keech: KL7YK@arrl.net		





# PUBLIC SERVICE ACTIVITIES

## Public Service

Listed below are events that local radio clubs and event coordinators are looking for communication volunteers to support these upcoming public service events. Your participation is appreciated.



# MS 150

## BIKE RIDE TO SEWARD

### Saturday & Sunday

### September 12th & 13th, 2009

Volunteers are needed to main checkpoints for the MS 150 Bike ride to Seward. This is a great area to test RF options due to the terrain restrictions. To volunteer and participate for this event please contact

Allen Abbott, KB1QCE

[allenabbott90@msn.com](mailto:allenabbott90@msn.com)



<http://training.fema.gov/>

## Anchorage Emergency Preparedness FAIR

### September 12th 2009, 11am-3pm

Want to promote amateur radio? Come out and join us at the Municipality of Anchorage Emergency Preparedness Fair at the Loussac Library in Anchorage.

We will be providing radio demonstrations on Satellite, VHF, IRLP, Echolink and many other modes. HF if enough operators are available. To volunteer, please contact: Heather Hasper, KL7SP by email at: [kl7sp@arrl.net](mailto:kl7sp@arrl.net)

## 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.

**ANC Exercise Follow-up:** The AARC received a very nice thank you letter from the Deputy Commissioner of Transportation thanking ARES/AARC for the professionalism and communications support in the recent ANC Airport Emergency Exercise. A copy of the letter is posted in the club hamshack. Thank you to all the volunteers who came out and supported this exercise and provided great representation of ham radio communications during emergency operations.

The ARRL Certification and Continuing Education Program, was approved by the ARRL Board in January 2000. Volunteers from all over the country assisted in pulling together information for the course. Because the topic of emergency communications is so diversified and so much information is available, the material is broken into three levels: [Introductory](#), [Intermediate](#) and [Advanced Emergency Communications \(Levels I, II and III\)](#).

Each on-line course has been developed in segments -- learning units with objectives, informative text, student activities, and quizzes. Courses are interactive and include direct communications with a Mentor/Instructor and other students.

Check out: <http://www.arrl.org/cce/> for more information.

### ARES District 7 Contact Information

Michael O'Keefe, KL7MD

[DEC7 at kl7aa.net](mailto:DEC7@kl7aa.net)






## Data You Can Use:

Freq	Tone	Call Sign	Features	Area
147.18 (-)	88.5	ADES		Ft. Richardson
146.88 -	no tone	AL7LE	Phone patch	Kenai Soldotna
146.82-	103.5	KB8JXX	IRLP	Anchorage
146.76 -	97.4	KL3K	IRLP	Seward
146.94 -	103.5	KL7AA	Phone patch	Anchorage to Wasilla
224.94 -	no tone	KL7AA	Phone Patch	Anchorage
444.70 +	103.5	KL7AA	Phone Patch	Anchorage
146.67 -	107.2	KL7AIR	MARS Station	Anchorage & Highway North
147.30 +	141.3	KL7ION		Very Wide Area
146.85 -	no tone	KL7JFU	Phone patch	Mat Valley
146.91 -	no tone	KL7JL		Homer
147.15 +	107.2	NL7J	Phone patch	Eagle River & Chugiak
<b>147.33 +</b>	<b>103.5</b>	<b>WL7CVF</b>	Cross linked to 443.900	Very Wide Area **
<b>443.900 +</b>	<b>103.5</b>	<b>WL7CVF</b>	Cross linked to 147.330	Very Wide Area **
<b>147.27 +</b>	<b>103.5</b>	<b>WL7CVG</b>	Cross linked to 443.300	Very Wide Area *
<b>443.300 +</b>	<b>103.5</b>	<b>WL7CVG</b>	Cross linked to 147.27	Very Wide Area*



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. **IRLP is not authorized on KL7AA repeaters except for special events as approved by the board and trustee.**

## 2009 Board of Directors

<b>President</b>	Randy Vallee	KL7Z	president at kl7aa.net
<b>Vice President</b>	Heather Hasper	KL7SP	vicepresident at kl7aa.net
<b>Secretary</b>	Paul Spatzek	WL7BF	secretary at kl7aa.net
<b>Treasurer</b>	Calex Gonzalez	KL2BT	treasurer at kl7aa.net
<b>Activities Chairman</b>	Pat Wilke	WL7JA	activities at kl7aa.net
<b>Trustee</b>	Keith Clark	KL7MM	trustee at kl7aa.net
<b>Membership Chairman:</b>	Fred Erickson	KL7FE	membership at kl7aa.net
<b>News Letter Editor</b>	Heather Hasper	KL7SP	editor at kl7aa.net
<b>Three Year Board Members</b>			
3rd Year	Michael O'Keefe	KL7MD	dec@kl7aa.net
2nd Year (replacement)	Eric McIntosh	KL2FM	KL2FM@arri.net
1st Year	Bruce McCormick	KL7BM	KL7BM@arri.net
<b>One Year Board Members</b>			
	TJ Sheffield	KL7TS	KL7TS@arri.net
	Dave Koch	KL2OS	azbound@gci.net
	John Orella	KL7LL	kl7ll@arri.net
	Susan Woods	NL7NN	NL7NN4606@yahoo.com
	Tom Rutigliano	NL7TZ	NL7TZ@arri.net
	Sean Jensen	KL2CO	KL2CO@arri.net
	Hugh McLaughlin	KL7HM	KL7HM@arri.net
(Past President)	Kathleen O'Keefe	KL7KO	kok at woodscross.net

## 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
147.42 MHz	Peninsula simplex chat
447.57 MHz	DX Calling / Coordinating frequency

<u>WINLINK</u>	<u>Callsign</u>	<u>Frequency</u>
Anchorage ARES RMS	WL7CVG-10	144.9
Palmer (MATSU) RMS	KL7JFT-10	145.19
FAIRBANKS RMS	KL7EDK-10	147.96
South Central Digipeater	WL7CVG-4	144.9

## Nets in Alaska:

The following nets are active in South-Central Alaska:

### VHF

**ARES Net:** 147.27/87 103.5Hz - Thursdays at 8:00 PM local  
**PARKA Net** 147.30/90, 141.3 HZ Thursdays at 7:00 PM local  
**Alaska Morning Net:** 145.15(-) PL123.0Hz; Daily at 9:00 AM  
**No Name Net:** 146.85/.25 repeater Sundays 8:00 PM  
**Big City Simplex Net:** 146.520, 446.0, 52.320 FM, 29.6 FM, 28.400 USB With Packet 145.01 and 147.96, Tuesdays 8:00 PM local  
**Grandson of SSB Net:** 144.20 USB Mondays 8:00 PM local  
**Alaska VHF Up Net:** 144.200 USB Saturdays 9:00 AM local  
**Statewide LINK Net:** 145.15(-) PL 123.0Hz; Sundays 8PM local

### HF

⇒ **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  
 ⇒ **ACWN (Alaska CW Net)**  
 3534, 7042 Daily @ 0700 -1000,  
 Net Purpose: Formal NTS traffic via CW.  
 AL7N or KL5T monitoring.  
 ⇒ **Alaska Pacific Net:**  
 14.292 MHz 8:30 AM M-F  
 ⇒ **ERC HF Net:** 3.880 MHz – Sunday 8:30PM



## Internet Links, the favorites from our readers:

AARC <http://www.KL7AA.net>  
SCRC <http://www.KL7G.org>  
EARS <http://www.kl7air.us>  
MARA <http://www.kl7jfu.com>  
Moose Horn ARC <http://www.moosehornarc.com>  
PARKA <http://www.parka-kl7ion.com>  
ARES <http://www.aresalaska.org>  
Practice Exams : <http://www.AA9PW.com>  
Fairbanks AARC: <http://www.kl7kc.com/>  
ALASKA MARS: <http://www.akmars.org>  
Alaska VHF-Up Group: <http://www.kl7uw.com/avg.htm>  
B  thel Amateur Radio Klub: <http://www.al7yk.org/>  
Yukon Amateur Radio Association:  
<http://www.yara.ca/>

## Links for Propagation

<http://www.haarp.alaska.edu/>  
QRP and Homebrew Links <http://www.AL7FS.us>  
Solar Terrestrial Activity  
<http://www.spaceweather.com>  
<http://www.swpc.noaa.gov/>

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](mailto: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 about amateur radio in Alaska.

**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 **Peggy's Restaurant at the corner of Concrete Avenue and 5th Avenue across from Merrill Field.** Great Fun.

## Who Do I Contact to Join AARC

Fred Erickson KL7FE  
12531 Alpine Dr  
Anchorage, AK 99516-3121  
E-mail: [membership \(at\) kl7aa.net](mailto:membership(at)kl7aa.net)  
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



## MONTHLY EVENTS

**1<sup>st</sup> 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.

**1<sup>st</sup> 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.

**2<sup>nd</sup> Saturday each month: PARKA Meeting at 11:00 AM.** Polar Amateur Radio Klub of Alaska. All amateurs welcome. Denny's on Denali Street in Anchorage. Talk in on 147.30+.

**2<sup>nd</sup> 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.

**3<sup>rd</sup> Saturday of each Quarter month: EARS general meeting at 3:00 PM.** EARS meetings are held formally each Quarter during the first month: Jan, April, July, and October. Meetings are held informally each month at R1 North. Contact info - PO Box 6079, Elmendorf AFB 99506 or email Ron Keech, KL7YK for information. EARS: 552-2664 (recording); Talk in on 146.67-. Email: [KL7AIR@arrl.net](mailto:KL7AIR@arrl.net) or [KL7YK@arrl.net](mailto:KL7YK@arrl.net)

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

**4<sup>th</sup> 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 Tim Comfort, NL7SK, [NL7SK at arrl.net](mailto:NL7SK@arrl.net).

## AARC web page & Email contact addresses:

Homepage: <http://www.KL7AA.net/>  
Webmaster: [webmaster at kl7aa.net](mailto:webmaster@kl7aa.net)  
Membership: [membership at kl7aa.net](mailto:membership@kl7aa.net)  
Newsletter: [editor at kl7aa.net](mailto:editor@kl7aa.net)

# **ANCHORAGE AMATEUR RADIO CLUB**

The 38th Annual Anchorage HAMFEST  
Saturday, **September 19th, 2009**  
10 AM to 4 PM

At

**1st Assembly of God Church; Anchorage, AK**

## **DIRECTIONS:**

Coming from the MATSU on the Glenn Highway take 5th Avenue until you get to C Street. Turn Left on C Street and go 10 blocks south to 15th & C Street. Facility located on the southwest corner; Look for Hamfest signs!

If Coming from the KENAI peninsula, come into ANC via the Seward Highway. Take the highway all the way through town and get into the left lane as you approach 15th Avenue. Turn left on C Street then immediately turn right into the parking lot.

**RAFFLE PRIZES**

Door Prizes!!

Grand prize, ICOM 7000

DO NOT need to be present to Win!

Winner will be selected at 3:30 pm.

HamFest Swap Meet.

Bring your stuff to sell.

Selling fee (includes admission) is \$10.

Table setup 9 to 10 AM.

Cash or credit cards accepted.

**Country Store**

## **PROGRAM:**

Demo satellite contacts in parking lot in the morning.

1:00-2:30 pm---- VE Amateur Radio License Testing.

12:00-3:30 pm----- Other sessions and talks (to be determined).

## **Contact Hamfest Chairman:**

Dave Koch, KL2OS at (907) 317-0110 or [azbound@gci.net](mailto:azbound@gci.net)



# Ham Radio Class

## Now Forming

The **Anchorage Amateur Radio Club**  
and the

**Elmendorf Amateur Radio Society**

KL7AA & KL7AIR



will be holding a **4** week course where **YOU** will learn everything you need to earn your entry level FCC **Amateur Radio** license and begin to **talk on the radio with other hams** in the area and at stations and military bases around the world.

As a Licensed Amateur Radio Operator You Get To:

- Serve Your Community
- Talk To Other Hams On The Radio
- Have Your Own Individual Callsign
- Talk to other operators around the world



Classes Begin on **TUESDAY, September 8 at 6:00 PM**

Pre-Registration is required.

**WHEN:** Tuesday & Thursday Evenings (6:00 - 9:00PM)

**WHERE:** First Baptist Church

Corner of 10th & L Street

Anchorage, AK

For more information please contact:

H. Hasper, KL7SP: (907) 275-7474

E-mail: [instructor@KL7AA.net](mailto:instructor@KL7AA.net)





## THE MODULATION TIMES

Anchorage Amateur Radio Club, Inc  
Post Office Box 101987  
Anchorage, Alaska 99510-1987  
[www.kl7aa.net](http://www.kl7aa.net)

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*ARRL Affiliated  
Club for more  
than 50 years*

## AMATEUR RADIO

# 2009 HAMFEST

## CQ, CQ, CQ

### AMATEUR RADIO

## ANCHORAGE AMATEUR RADIO CLUB



When: *SATURDAY,*  
*SEPTEMBER 19, 2009*

Location: 15th & C Street, Anchorage  
First Assembly of God Church