

# Propagation

Kootenai Amateur Radio Society (KARS) Newsletter

NOVEMBER 2006  
More satire for your amateur radio buck

## F O R S A L E

The monthly newsletter of the Kootenai Amateur Radio Society, known as "Propagation" is now for sale. Current proprietor has grown weary of the newsletter, and is willing to sell the entire operation at a cut-rate price. See related story--page 5.

### PRESIDENT'S CORNER

#### More Changes for Amateur Radio Operators

Dear KARS members and Friends,

Just when I was starting to get comfortable with the Communications Act of 1934, they (the FCC) went and did it again. I'm referring to the "Omnibus Amateur Radio Report and Order", released on 10/10/06. The R&O, which contains many small changes to Amateur Radio rules, will become effective 30 days after it is published in the Federal Register. If you want to read the whole thing, go to the government version (good if you have trouble sleeping):

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-149A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-149A1.pdf)

Or, if you just want to view the highlights (about 43 pages shorter than the official version), go to: <http://www.arri.org/news/stories/2006/10/11/100/>

If you've been attending KARS meetings recently, you have heard mention of a major revision to the Club Constitution. We think that this document will be ready for review, discussion, and ratification by the November meeting.

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### VICE PRESIDENT'S REPORT--N7JU

#### When the "98" Repeater is down...

try Echolink!!!

The meeting program for the November 13, 2006 KARS meeting is on Echolink.

It's free...it's a world-wide voice and data communication system, its only available to licensed amateurs (Technician Class and above) and there is no QRM! What is it all about?

Echolink was developed by Jonathan Taylor, K1RFD, not only a great software developer, but a true gentleman who approached this whole concept initially with a view towards improving a system called "iLINK". iLINK was an early application in the development of VoIP (Voice Over Internet Protocol) now commonly used in Vonage® and other "telephone service replacement therapies".

Initially "Echolink" was un-named, and because it enhanced the graphical front end for the "iLINK" protocol (invented by someone else), K1RFD

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- Read about Echolink  
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- Do something!  
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Propagation is published monthly by the KOOTENAI Amateur Radio Society (KARS). The club is located in Coeur d' Alene, Idaho and serves the North Northern Idaho and the Spokane, Washington areas

KARS operates voice repeaters on 146.980 and 444.775 MHz and a packet repeater on 145.510 MHz. KARS normally holds meeting at 1900 hrs, on the second Monday of each month in the Shep Rock Building at the Coeur d' Alene Airport.

Anyone interested in Amateur Radio is welcome to join. Dues are \$12.00 (individual) and \$18.00 for a family membership. Contact the Treasurer (see page 6) to join KARS.

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### CALENDAR OF EVENTS

DATE/TIME	EVENT	LOCATION
13 November at 7 p.m. (Monday)	KARS monthly meeting	Kootenai County Airport (Shep Rock Building)
20 November at 6:30 p.m. (Monday)	ARES/RACES meeting	Kootenai County Sheriff's Department
Every Wednesday at 8 a.m.	Donut Day	Rathdrum Super 1 store (on Highway 53)

#### Next KARS Meeting:

**Monday, 13 November 2006 at  
7:00 p.m. In the Shep Rock Building at  
Kootenai County Airport**

#### Directions to the KARS meeting:

**Take U.S. Highway 95 to Miles Avenue (Miles is about one mile North of Hayden Avenue). West on Miles to the Airport gate. Through the gate (requires access code--see KARS president), bear left to the Shep Rock Building.**

## PRESIDENT'S CORNER

(continued from page 1)

Please plan to attend so that you can be part of this process.

On the lighter side, I understand that a new "Q" signal, "QHK" has been assigned, principally for use by folks operating CW and Digital Modes. QHK may appear as a question or reply, as shown in these examples:

QHK? = How many knobs does your radio have?

QHK 31 7 = There are 31 knobs but I only understand how to use 7 of them.

73 to all!

Ed, AI7H

## VICE PRESIDENT'S REPORT

(continued from page 1)

attempted to obtain permission and source code from iLINK's owner to apply his third party software embellishment to iLINK. iLink's owner denied his request flat out. K1RFD wasted no time moving on (and way beyond iLINK). Lucky for us also, because K1RFD's new protocol is years ahead of iLINK and since being released, Echolink as it is now known, has *blown away* iLINK. RIP iLINK!

Persuaded by ham radio operators, K1RFD decided to form another completely new peer to peer VoIP protocol. Initially thinking of calling it *Hamlink*, K1RFD discovered that some other ham programmers were already using that name for a very limited VoIP system also in development. K1RFD decided to call his system "*Echolink*" instead.

(continued next column)

In a matter of months 99.0% of all ham operators using iLINK switched to Echolink and in an equal number of months iLINK was all but gone from the world wide ham radio scene. (*You snooze and you loose!*).

Echolink supports (3 modes), two sysop modes (1) a full duplex repeater controller and/or (2) links to simplex VHF/UHF portables; as well as, (3) *PC to PC ham users*. (and any combination of the three). As a side issue, Echolink was initially based upon MS Windows<sup>®</sup> however many felt that *Linux* may be a better OS platform for unattended ham radio applications. Thus, a similar system called IRLP (Internet Radio Linking Project) was also developed by others. In a nutshell, IRLP requires special controller hardware and a dedicated Linux computer to enable (usually a direct interface with repeaters or transmitters on mountain tops) VHF/UHF portable access to similarly equipped IRLP base stations around the world. IRLP works great and usually requires an IRLP group of hams to control and monitor a given system. It also needs dedicated and costly hardware to build a *node* or a *reflector*. Users, (like us) are either "excluded" from using an IRLP (closed) system; or, are coerced into "pitching in funds" to support a local effort. For the occasional ham (like me), who just likes to dabble in "hamming on the Internet" Echolink is the answer...and in the final analysis, can do almost everything IRLP can do at 1/10<sup>th</sup> the cost. There is even a move afoot to link the two systems on one repeater system so things are getting a bit complicated but are nevertheless moving in parallel directions.

The underlying criticism of both Echolink and IRLP is that neither is *amateur radio*. For contesting and collecting QSL cards (*working countries* for awards)

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KARS member Jeff Wall (KB7TIC) must be proud--Jeff's son (Jeff, Jr.) has earned his Technician class license and has been issued call sign KE7JFJ. Way to go, Jeff, Jr.

## Upcoming VEC/VE Licensing Exams for Our Area

- 09 November (Thursday) at 5 p.m. Trading Company store (formerly Tidyman's Grocery), 13014 E. Sprague Avenue (corner of Sprague and McDonald), Spokane Valley, WA. Contact Mary Qualitieri (AA7RT) at 509.991.2192 or aa7rt@arrl.net
- 13 November (Monday) just before regularly scheduled KARS meeting (meeting begins at 7 p.m.) at the Kootenai County Airport in Hayden, ID. By appointment only--no walk-ins. Contact John Hollar (N7JU) at 208.765.5470 for appointment.
- 16 November (Saturday) at 9:30 a.m. By appointment only--no walk-ins. In Sagle, Idaho. Contact Russ Arndt (AA7XM) at 208.265.4534 after 8 p.m. or russell.arndt@verizon.net

## VICE PRESIDENT'S REPORT

*(continued from page 3)*

maybe so. You can't obtain a QSL card from Angola using the Echolink system and expect to apply it to the ARRL DXCC award. But this situation has been around for years with our use of VHF/UHF repeaters and digipeaters etc. What is *real about the system* is how much fun it is to *chat*, QRM free, with hams all over the world, some sitting at home in front of their PC's or wireless laptops, (not possible using IRLP) and other hams driving to work in their autos linked to their local club repeater. Repeater rules apply when using *sysop* modes (i.e. call letters, 10-minute ID, sign on and signoff requirements).

Our KARS program on Echolink (also done a few years back) should be fun for those not yet trying the mode, and serve as a *refresher* for those who have given it a try. Your assignment, between now and November 13, 2006, is to download your own exclusive free copy of the most current Echolink program, install it on your home computer, then validate it with your own personal NODE number. Be advised that the Echolink program does not conflict with anything on your computer and can be removed without problems. It sits there in your Program Files until *called* to action. It uses no resources when not running. Here is how it is done:

Log on to [http://www.echolink.org/register\\_data.jsp](http://www.echolink.org/register_data.jsp)

Follow the directions at the Echolink web site for registering your call sign and validating the info--- Echolink will e-mail your *Node Number* in a few hours. Bring your *Node Number* to the KARS meeting and we'll take it from there.

One last comment, you can run Echolink, even on dial-up systems (AOL etc.) The only limitation is that the number of participants in a *round table discussion* or *conference group* is limited to two or three as opposed to 10+ using a DSL/Cable ISP.

John Hollar -N7JU Echolink Node# 123513

## POST HALLOWEEN TRAUMA?

**Warning: do not read this is you frighten easily.**

With the recent passage of Halloween, you may have had your fill of ghosts, goblins, and scary skeletons. Are you afraid of skeletons? If so, don't look now--there is one inside of you even as you read this! Aaaaahhhhhhhh!!!

## TECHNICAL TIDBIT

I hope, with these words, to inspire some serious hamming in the area of enhanced technical knowledge. New technician class hams and more experienced hams both can advance themselves to a higher level--new hams with new understanding, and more experienced hams with refresher learning. Let's talk about *resonance*. What is it, what is it good for, and where can we learn more? Let's start with the last question. You can learn or refresh your knowledge by going to any of the technical sources common to ham radio. A license manual, the ARRL Handbook, or any other basic electronics book. For those of you who are not familiar with the ARRL Handbook, it is a great source of technical information for hams--written for hams by hams. I recommend that all hams consider adding it to their library. Now--back to the matter of resonance. What is it? Resonance is a condition where, in a electric circuit comprised of capacitors and inductors, the capacitive reactance equals the inductive reactance. Remember that reactance is the opposition to the flow of alternating current, and that the value of reactance is a function of the frequency of that alternating current. Therefore, for any circuit with capacitors and inductors, there will be a frequency, and only one frequency where the capacitive and inductive reactances are equal--that is the frequency of resonance for that particular circuit. OK--so what? Well, if I needed a circuit that was selective in terms of frequency, say to tune a radio, what could be simpler than a resonant circuit? A resonant circuit can "tune" an oscillator to produce a particular frequency to drive a transmitter, or it can act as a tuning device for a receiver, allowing the receiver to "pick-off" a particular frequency of interest, and bypass all others to ground. It is not my goal with these few words to fully explain the operation of resonant circuits, but to inspire the interested reader to pursue that knowledge by going to the technical references mentioned above, or to ask for the help of one of the many "Elmers" available within KARS. Don't just sit there with your 2-meter hand-held transceiver emulating the CB-ers of the world--do some real hamming. Do some real learning, do something really challenging in pursuit of a worthwhile ham radio goal. If you already possess broad technical knowledge, put that knowledge to use. Spread that knowledge around--teach and mentor. Do something with your building skills or your operating skills, and then make a presentation at a monthly KARS meeting so that your accomplishment can be used to inspire similar activity in others. Go for the "WOW!" factor. I'm bored with what I see going on in KARS--what are you going to do about it?

--wearily yours, the editor.

## “PROPAGATION” FOR SALE

As indicated under the banner on page 1, the Kootenai Amateur Radio Society newsletter (AKA “PROPAGATION”) is for sale. I, your humble editor made the decision to sell the newsletter operation after requests to club management that a replacement newsletter editor be appointed failed to achieve that goal. It has been three years now that I have been doing this job--three long years for me and for PROPAGATION readers. Too long for me, too long for you. Since no member of KARS has been willing to step-up to the plate, as it were, I have decided to seek relief elsewhere.

Among the candidate purchasers, several stand out as particularly worthwhile. I made the decision that I would only sell the newsletter operation to another Kootenai County user-interest group, preferably another amateur radio club. Unfortunately, there are no other amateur radio clubs in Kootenai County. There are, however, user-interest groups representing other hobbies and activities. One such group is the North Idaho Flower and Gardening Society. If I ultimately choose this prospective purchaser to run the newsletter, they have the advantage of having the word “Society” in their name, just as we do. It makes for less work when it comes to changing the newsletter banner. It could be good for KARS members as well--we all need to know more about how to care for delicate warm weather plants and flowers over the bitter Idaho winter, and I suspect that information on that topic would replace articles on use of the “08” repeater or articles on restoring vintage radios. It is not farfetched to think that we might get articles on how to grow deep-root shrubs and tree, and I feel that with a little research and experimentation, we might figure out how to use those deep roots as ground systems for antennas and radio stations in general.

Another candidate purchaser is the Kootenai County Stitchery and Knitery Club. This is a group of people interested in the arts of needlepoint and crochet and knitting. I know I could certainly use more information on the difference between crochet and knitting. I have often wondered exactly what was meant by “knit one, purl two,” and the prospect of selling PROPAGATION to this club means we would all be one step closer to an answer to that driving question. I also think that a relationship between this club and KARS would be a potential benefit to those who choose to remain with KARS. We have been trying for some time to settle the issue of badges or nameplates for KARS members--well, did anyone consider having those nameplates made with needlepoint? See what I mean? This could be good for both sides.

The Northern Counties Culinary Association has also expressed an interest in acquiring PROPAGATION. Although at first considered a dark horse, this group has been moving up on my list of candidate purchasers as I think more about the natural affinity KARS members will have for such a group. Having attended four years worth of Christmas Potluck Dinners and Summer Picnics, as well as Some lesser number of Donut Days, I have seen how much KARS people like to eat. Not only would our recipe baseline be expanded tremendously, but we would be exposed to raging controversies as to whether a chef’s knife is dulled more quickly by cutting bell peppers from the outside (shiny) surface or the inside (dull) surface. There is a theory that cutting from the denser, harder outside surface, a knife will lose its edge more quickly. Only through an affiliation with a culinary group like the Northern Counties Culinary Association will we get to read arguments on each side of this issue. For several years now, Christmas Dinner planners have decided to include the local ARES/RACES group in our potluck dinner activities. Think how much better the food would be if we replaced the ARES/RACES group with participants from the Culinary Association--the gastronomic possibilities are astounding.

Then there is the Coeur d’ Alene Choral Society. Many KARS members are active on the phone bands--wouldn’t you like to better know how to care for your voice to preserve its upper and lower octaves? Do you not often worry about how to achieve just the right amount of tremelo in your CQ calls? If the CdACO became the new owners/operators of PROPAGATION, I feel confident that we would get answers to these and other pressing questions in upcoming issues of the newsletter.

Well--there you have it. This is my current thinking on the problem of how to get a replacement editor for PROPAGATION. I will sell the newsletter operation to one of the groups cited above unless Stuckey, Hollar, et al step in with affirmative measures to put things right.

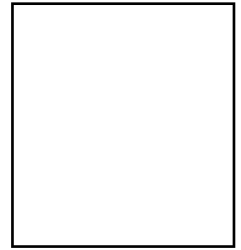
*--your humble editor*

## SPECIAL MESSAGE FROM EDITOR’S SON

*My father, WO6LF, has built a life-long reputation as a man of high ideals and solid decision making based on logic, reason and rational ideas. His ethics have been unquestioned. However, of late, I have noticed a slight deviation in his behaviour. I believe that he means what he says above--and to make it worse, I believe he intends to keep the monetary proceeds of any sale to himself--you must act now to protect KARS and its newsletter--your inaction will be your regret.*

*--Ken McQuiston*

KOOTENAI AMATEUR RADIO SOCIETY  
PO BOX 5222  
Coeur d' Alene, ID 83816



Deliver to:

***Gobble-gobble. This is the November 2006 Issue.***

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*Happy  
Thanksgiving  
From the  
Kootenai  
Amateur Radio  
Society*

**DISCLAIMER**

Unless otherwise indicated, the material presented in this newsletter is fully the responsibility of the editor, and does not necessarily reflect the opinions of any other member of KARS.