

April 2007

(www.k7id.com)

P.O. Box 5222 Coeur d'Alene, ID 83816

REGULAR CLUB MEETINGS:

April 9

Sheprock Building

7:00 to 9:00 P.M.

Program: The American Red
Cross and KARS.

Speaker: Kerren Vollmer

Refreshments: Margaret Telles

May 14

Sheprock Building

7:00 to 9:00 P.M.

Program: National Weather
Service Presentation and
Spotter Certification

Speaker: TBA

Refreshments: Need Volunteer

Friday, June 8

Post Falls American Legion

7:00 to 9:00 P.M.

Program: Potluck Dinner and
Preparing for the Swapmeet.

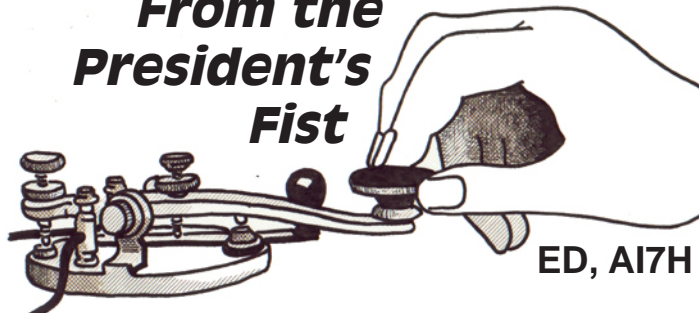
Speaker: Jim Monroe N7ESU

Refreshments: Everyone!!!

Need volunteers to sign up to
bring refreshments. See Ed
AI7H at the next meeting.

The Boy Scout-O-Rama/KARS
Activity coming April 21st. If
you want to help, contact Ed,
KE7FOW. We need volunteers
at the Fairgrounds and member's
QTH to call in.

From the President's Fist



Progress On The KARS Constitution

Greetings to Club members and friends,

In September, 2006, a "Constitution Update Committee" was commissioned by the Club. The duties of the committee are to review the current Constitution (last updated in 1986), and to update that Constitution, as appropriate, to reflect the realities of modern times (like use of e-mail, the internet, and to recognize our Club Call Sign).



Eleven Club members provided comments and suggestions for the updated document, and we found that almost all of the discussion was about five sections. (You will recall that this was mentioned in the February *Propagation*). At the March Club meeting we had an opportunity to discuss these five sections and develop a membership consensus of how to address them. The help of those who attended the March meeting, and joined together to work on this is greatly appreciated!

All of the changes have been incorporated into the updated Constitution/By-Laws, and that Document is available for your thoughtful consideration. To view the updated Constitution, sign on to the internet, and point your browser to the Club web site, www.k7id.com. Once the K7ID page is opened, scroll down the left side to "Upcoming Events", and a label will pop up to the right. Click on the first line of the label (titled "Constitution/By-Laws"), and the document will appear. You may study the document on-line, or print it. I recommend that you print it, and bring it along to the April Club meeting. We expect to have a call for ratification at the April meeting, so all Club Members should be prepared to vote on this important matter.

73 to all, Ed Stuckey, AI7H Club President

WORDS

OF

WISDOM!!!



Give an honest signal report

How many times have you heard some one giving a signal report that goes like; "You're making it just fine." When the reality is that the party is just barely breaking the squelch on the repeater, and their audio is in the dump. I believe we all have heard similar stuff.

Well we all need to be a lot more honest when giving a signal report. You are doing the other person a disservice if you don't.

A signal report on a 2 meter repeater is slightly different than on the HF bands. On 2 meter repeaters the report is a "dual report". It covers:

- 1.) The signal strength into the machine and
- 2.) The quality of the audio

A full quieting signal is one that has no background "spectrum" noise in it, and the audio is clear. Anything less than that, the audio is competing with the noise level, and is subjective according to your ear. i.e. "You're about 70% quieting, but a good copy." or "You're only 60% into the machine and the copy is getting a bit rough." At the point you feel that a signal is only 50% into the machine and 50% noise, advise the party that they're just barely making it and they need more power or antenna or both.

The audio report should be honest too. If the audio is barely readable tell them so. If it sounds harsh, garbled or over driven tell them so. It doesn't help any one to tell them they sound great when it isn't true.

Honest signal reporting will help all of us improve our stations and make 2 meter repeater operations sound a lot better.

73 de,
K7JMC

2

Sharon and I spent two weeks in March in search of sunshine and managed to make it to Santa Barbara, Long Beach, and San Diego ending up in Las Vegas for a week visiting with some of our ham buddies and friends and to catch the Stardust Hotel & Casino bite the dust (imploded). I was delighted to hear and *talk on* my past radio club's repeater, the Frontier Radio Amateur Society, on 145.39MHz. (110Hz) and, to hear they had added IRLP to their controller. What fun to *node over* to my buddies back in Pennsylvania from Vegas. The FARS machine was still going strong after five years...apparently with *no service calls or outages* from the day we plugged it in on Black Mountain back in 2002. Now that's reliability huh? It's the **same repeater system and RC-1000 controller** we are looking into right here in Kootenai County as a possible upgrade to the KARS system offered by Micro Computer Concepts. Check it out: <http://home.earthlink.net/~mccrpt>



As we drove through Kellogg (yes guys I could pull up your **94** machine all over the place!!!!), Montana, Utah, Arizona, and Nevada I was impressed by two things. The number of **closed VHF repeater systems** to traveling ham radio visitors (until I got to Vegas of course), and the amount of **trash** along the side of the Interstates from US 90 to 15 and west on into Southern California for a total of 1457 miles. Unbelievable! It took our esteemed *Propagation* editor to remind me that these *two issues* might be closely related. The **only** radio amateur group I saw along the way tending to a portion of Interstate highway clean-up was...you guessed it: **Kootenai Amateur Radio Society!** Hooray for us. So what's wrong with the rest of the world?

Countless signs every two miles or so for *highway clean-up recognition* were just plain **blank** ...no volunteers. Getting closer to cities, where the probability of vastly increased traffic (and trash), those same acknowledgement signs did have volunteers like (well known) real estate franchises, local banks, large commercial suppliers etc. No

doubt these folks were keen on getting tons of free publicity for their *road-side signage* (where commercial billboards run upwards of \$2000 per month along an Interstate). There was just one problem, the trash along *their sections of the highway* was much worse. *All sign...no pick-up.*

Randy Carlson, KB6YAV and others through the years have given credibility to our *little sign hanging* on a 2-mile stretch of US 90 heading East. Twice a year...weather permitting, legions of KARS members and friends risk life & limb (and *yucky stuff*) to pick up and bag trash along both directions of the highway to make our little section of the road look nice. I'm wondering who administers this program in Boise and will be exploring this process more thoroughly in the coming months to let them know of our dedication. Those that meet their commitments should be recognized for a job well done, those that don't should have their sign draped in black or perhaps in trash. One obvious observation was the two most egregious items that destroy the decorum of our highways: 1) white **plastic bags** (soon to be banned in California); and 2) believe it or not in our case from experience, burned out red flares, their plastic strikers, and wire holders laid down by the Idaho State Police or tow trucks to caution the scene of disabled vehicles. Other fun stuff has also been retrieved on previous *bagging sessions* like cash (actual money), a bag of *pot* (and some smoking paraphernalia), used syringes, various articles of clothing, lots of hats, and beer cans. *Bud Lite* is the number one road-side beer can of choice. Our next highway clean-up session will be a date to be determined in May 2007 and will be coordinated by **Ed Hannigan Jr, KE7FOW** and **Ed Stucky, AI7H**. For a lot of fun and a great few hours of fresh air and exercise, join us in this worthy endeavor. This year we plan to have a little extra coverage for the event and maybe some photos and video on local media. - N7JU

LOGBOOK

VE Examinations:

COEUR d'ALENE & KARS

Our thanks to **Jerry Hooper, KA7RNX**, Club K7ID Trustee and VE Team member and his group for conducting testing at the March KARS meeting and our congratulations to **Bear Paw** for passing his General Class License. April 9th we'll do it all again starting at 6:00PM before the KARS meeting. Anyone desiring to take the Extra Class exam we'll need to start at 5:30PM (The Extra Class Exam takes about an hour). Bring a photo copy of your current license, driver's license, and a remittance of \$14.00 check (to the ARRL), or cash for which a receipt will be issued. The VE team took another

trip to Bonners Ferry, ID on March 17th to test seven Technicians and one General class. Sad to say, as of this writing, call letters have not yet been assigned as was expected because of the onslaught of no code *upgrades* currently being processed by the FCC. Call **N7JU at 208-765-5470** or e-mail **N7JU@arrrl.net** for your testing appointment.

SPOKANE, WA

Register to test in Spokane this month by calling **Mary, AA7RT** at 509-991-2192 or e-mail **aa7rt@arrrl.net** for dates, locations and times.

SAGLE, ID

"Testing Suspended Until Further Notice." Contact John, N7JU. His contact information is listed above.

AA7XM Russell Arndt

DIRECTIONS TO KARS MEETING:

Take U.S. Highway 95 to Miles Avenue (Miles is about 1 mile North of Hayden Avenue). Go West on Miles to airport gate. Gate requires access code (call Ed, KARS President at area code 208 699-7743). Once past gate bear left to the Shep Rock Building.

THE WORLD
ACCORDING
TO JOHN

KARS APRIL MEETING

Addresses a **HOT TOPIC** – Be There!

The April 9, 2007 KARS meeting features **Karren Vollmer** of the American Red Cross (and soon to be a licensed radio amateur) with an invite to our brethren at the Kootenai County EOC. Kerren comes to us with the reactivation of the **Red Cross** presence in the Kootenai County area with her headquarters in Coeur D Alene, ID. Her job is difficult but her skills and personality are certainly up to the task. Unfortunately there is a challenge involving a new and highly controversial ARC policy that has the amateur radio community in an **UPROAR!**

Last year the American Red Cross Headquarters released an edict. Simply put, all persons volunteering for

the Red Cross in any capacity (including radio amateurs, ARES etc.) must give written permission to the ARC to conduct a **personal back ground check**, a **credit check**, and a **mode of living check** done through a highly questionable ARC affiliate a.k.a. **mybackgroundcheck.com**. Concerns by amateur radio volunteers are that of *invasion of personal privacy* and *the potential for identify theft*. Many ARRL members, including those who are also Red Cross volunteers, and ARES members who provide emergency communications for the benefit of the Red Cross, have questioned this policy, and whether or not it applied to them.

The ARRL advised its members that they must **decide carefully for themselves** whether or not to participate in this program. This information is subject to change, however, as ARRL and the Red Cross have commenced discussions about the application of the Red Cross policy to Amateur Radio operators providing emergency communications. The private company **mybackgroundcheck.com** has a consent form **which is a requirement for the background check et al**. The deadline for compliance with this Red Cross requirement, twice postponed, was March 31, 2007. A show of hands as to how many of **you** have signed this release? After that date, the Red Cross indicates that they will **not accept volunteer services (how about contributions?) from any ham who has not complied**.

Radio amateurs and ARES members *should carefully consider what is being requested; for what purpose the information is needed; to what use the information will be put; and to whom it will be disclosed*. While there have been conflicting statements by local Red Cross chapters, the National Headquarters of the American Red Cross apparently intends to require that all radio amateurs who provide communications for the Red Cross **submit to the background check**. After weeks of wrangling the ARC Headquarters issued its now famous **SUV resolution** designed to solve the entire problem. Well maybe.

So What is an SUV?

According to the National Red Cross, SUVs are **spontaneous unregistered volunteers**. They could be used for less than six days without signing the form but then they are shown the door. Showing attitude the ARC followed this compromise with the following: *These volunteers – while wanting to do good at a time of emergency, can cause major problems and tie up the inbound trained/registered volunteers as well as clients seeking help. SUVs show up with no prior training, nobody knows who they are, the staffing or whoever is handling the emergency doesn't have any idea how/where to use them. SUVs mean well – but if they want to be part of an emergency, they need to get involved PRIOR to the*

*emergency – they need to get trained – get involved. They need to have their **background check, credit check and mode of living check**.*

Wow! I guess they told us. (N7JU)

On February 6, 2007, the Interim CEO and the National Chair of Volunteers of the Red Cross jointly announced that the policy **had changed**; (1) that **only criminal background checks** would be required of Red Cross volunteers; and that credit checks **would not be required except where separate permission was granted**; and, that **mode of living checks** would not be conducted on volunteers under any circumstances. However, the Red Cross' investigation company consent form **still includes consent** for all these checks. Do they think we are that stupid or are they speaking with *forked-tongue*? (N7JU)

Come to the April KARS meeting and hear the whole story. **Ask your questions**. Let Kerren know what **you** think. Please treat our honored guest with courtesy and respect. This issue **is not of her doing** and we need her as much as she needs all of us. It should be a trend setting and perhaps even a press covered event... and a lively meeting for sure. –N7JU



W6RO Club Station on board the Queen Mary (in the old *Wireless Room*) docked at **Long Beach, CA**. It's a mixture of 60's and 90's Amateur Radio gear and the station is used for special events, and emergencies. –N7JU

Editors Note: The above picture will be put up on the K7ID website to you can get a better look. See how much of the equipment you can identify.

**CIRCLE YOUR CALENDAR
JUNE 9, 2007**

KARS ANNUAL SWAPMEET

**NEW LOCATION
DIRECTIONS & MAP IN THE NEXT
NEWSLETTER**



LEAGUE BULLETINS FROM NEWINGTON

APRIL 2007

NEWINGTON, CT, Mar 23, 2007 — In the wake of recent changes in the Part 97 Amateur Radio rules, the ARRL has revised its “regulation by bandwidth” proposals to match the new reality, avoid some unintended consequences and temper some of the controversy the original petition had aroused. In a November 2005 *Petition for Rule Making* (RM-11306), the League asked the FCC to establish a regulatory regime that would segment bands by necessary bandwidths ranging from 200 Hz to 100 kHz rather than by emission mode. The ARRL now is urging the FCC to adopt a “subset” of the rules contained in its original petition that largely affects only the amateur bands at 28 MHz and above.

“Because the proposals affecting the bands above 28 MHz had not aroused much controversy, they were retained in the shortened list,” ARRL CEO David Sumner, K1ZZ, explained this week. “Regulation by bandwidth rather than by mode of emission remains controversial below 28 MHz because of its perceived potential impact on established operating patterns, so these proposals were removed from the list with one narrow exception.”

That exception addresses the fact that current rules impose no effective bandwidth limit on HF digital operation. “Digital emissions using multiple carriers, such as OFDM [orthogonal frequency division multiplexing], can be designed for any bandwidth while staying within the existing rules,” Sumner points out, “so, the subset of proposed rule changes includes a bandwidth limit of 3 kHz on RTTY and data emissions below 28 MHz.”

The proposed 3 kHz RTTY/data bandwidth limit aims to avoid the possibility existing under the present rules that a single digital station could monopolize large MF and HF band segments. In an *Erratum* this week the ARRL also asked the FCC to retain the existing 500 Hz bandwidth limit that applies to certain automatically controlled RTTY/data stations under §97.221.

The ARRL proposal would amend the definition of “bandwidth” in §97.3(a)(8) to read: “For a given class of emission, the width of the frequency band which is sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions.” The rule references the definition of “necessary bandwidth” appearing in Parts 2 and 97 of the FCC rules.

Affected Bands

If the FCC adopts the League’s revised proposals, the 10, 6 and 2 meter amateur bands would be segmented into subbands allowing maximum emission bandwidths of 200 Hz, 500 Hz, 3.0 kHz (with an exception for double-sideband, full-carrier AM phone), 16 kHz or 100 kHz. Above 222 MHz, the entire emission must be within the allocated Amateur Radio band to comply with §97.307(d).

- 200 Hz would permit CW “at all speeds that human operators can decode” as well as PSK31.
- 500-Hz bandwidth to accommodate RTTY and data modes and possibly some new image modes.
- 3.0 kHz to accommodate SSB and digital telephony, image, high-speed data and multimedia (the League’s original petition specified 3.5 kHz).
- 16 kHz to permit analog FM voice, data, digital voice and multimedia at 29.0 to 29.7 MHz.
- 100 kHz, now permitted for RTTY and data in bands above 420 MHz, would be permitted from 50.3 to 54 MHz, 144.3 to 148 MHz and 219 to 220 MHz to allow digital multimedia and high-speed meteor scatter work.

Sumner concedes that the subset of proposed rule changes in RM-11306 would provide less protection to CW, RTTY and other narrowband modes than the League’s original proposals afforded, but *not* less than the existing rules provide. “In fact, protection against interference from wideband digital modes would be increased, not decreased, even by adoption of the subset,” he contended.

Confusion and Consternation

Some confusion arose because of an inadvertent omission in the initial notice of a meeting on this subject between ARRL officials and FCC staff. This week’s *Erratum* addressed that issue.

Additional consternation followed in the wake of a widely circulated, but erroneous, comment alleging “the complete absence of CW as a mode in the table of HF modes” the ARRL submitted. The ARRL has proposed *no* change to §97.305(a) of the rules, which authorizes CW on all amateur frequencies except on 60 meters.

The League *has* petitioned the FCC to permit CW and other modes on 60 meters, in addition to the presently permitted upper-sideband SSB.

NEWINGTON, CT, Mar 30, 2007 — Iraq Amateur Radio Society (IARS) President Diya Sayah, Y11DZ, says a ham radio blackout in his country remains in effect, with no end in sight. As part of the new security plan in Baghdad, the Iraqi Ministry of Defense earlier this month requested that radio amateurs remain off the air until security improves. Because of a miscommunication, however, word failed to reach the Iraqi Communications and Media Commission, which still is issuing licenses.

The K7RA Solar Update

SEATTLE, WA, Mar 30, 2007 — The daily sunspot number ended its stretch of zeroes Friday, March 23, after 10 days of totally blank sun. Since then the daily sunspot number has ranged from 11 to 23. The daily sunspot number is *not* the same as the number of sunspots but represents the number of spots and individual groups of spots. The minimum non-zero sunspot number is 11, when one sunspot is visible.

Geomagnetic activity came a little earlier than predicted, with the active day on Saturday, March 24. The latest forecast puts the next period of higher geomagnetic activity on Monday, April 2. The sunspot numbers and solar flux should remain about the same, with no more than one or two spots visible.

Geophysical Institute Prague predicts quiet geomagnetic conditions for March 30 and 31, unsettled activity on April 1 and 2, quiet to unsettled on April 3, and quiet again on April 4 and 5.

Your never too old!

OHIO March 2007 — When you got your ticket, you were probably excited about all that was to come with your new hobby and relieved that the test was behind you. For many of us, that happened when we were adolescents or teens. The rest of us either came back to — or discovered — ham radio and were first licensed as adults. But very few of us heard, “Congratulations, you passed!” at the same point in life as Clarence Hollow, KD8ETS, did.

On Saturday, December 2, 2006, at age 91, Clarence passed the test for his Technician license. For Clarence, his wife Betty and the VE team there were smiles all the way around.



A little back ground on the 220 MHz for those that didn't know it existed..

History The 1.25 meter band has a very long and colorful history dating back to before World War II.

The beginning

The history of the 1.25 meter band can be traced back to the Cairo Conference in 1938. It was there that [[Federal Communications Commission [FCC]]] gave U.S. amateurs two “new” VHF bands: 2.5 meters (112 MHz) and 1.25 meters (224 MHz). Both bands (as well as the 440 MHz Band) were the natural harmonics of the 5 meter band. The 2.5 meter band was later reallocated to 144 - 148 MHz when the original allocation was used for aircraft communication during World War II, becoming the modern-day 2 meter band, while the 1.25 meter band grew to be 5 MHz wide, spanning 220 - 225 MHz.

The VHF/UHF Explosion

Amateur use of VHF and Ultra high frequency/UHF allocations exploded in the late 1960s and early 1970s as repeaters started going on the air. Repeater use sparked a huge interest in the 2 meter and 70 centimeters (420 - 450 MHz) bands, however this interest never fully found its way into the 1.25 meter band. Many amateurs attribute this to the fact that there was an abundance of commercial radio equipment designed for 136 - 174 MHz and 450 - 512 MHz that amateurs could easily modify for use on 2 meters and 70 centimeters. There were no commercial frequency allocations near the 1.25 meter band, therefore there was no commercial radio equipment available. This meant that amateurs who wanted to experiment with the 1.25 meter band had to do so by building their own receivers and transmitters for the band or by buying one of the few radios available from amateur radio equipment manufacturers.

Further, since the band is allocated only in ITU Region 2, the major equipment manufacturers (Kenwood, Yaesu and Icom), for the most part, do not often offer transceiver models which

PACKET NET - 145.510 MHz...EVERY 1st & 3rd THURSDAY. Contact Randy, KB6YAV for details!

cover the frequency range. This helps to continue the lack of usage of the 1.25 meter band, though the equipment manufacturers argue that when they have produced equipment, it hasn't sold well as compared to other products. In recent years, Kenwood and Yaesu have both included the 1.25 meter band in some of their multi-band handheld transceivers. The Kenwood TH-F6A, ICOM IC-T90 and the Yaesu VX-7R include coverage of the 1.25 meter band in addition to the more popular 2 meter and 70 centimeter bands. It is widely believed that these are two of the most popular handhelds available right now. The only 1.25 meter non-handheld widely available new today is offered by Alinco, another Japanese manufacturer. The Alinco 235T, a 25-watt FM-only radio intended primarily for mobile use, is quite popular. In the few regional pockets of heavy 1.25 meter activity, the 235T is the radio of choice.

Novice Licensees Get Privileges

By the 1980s, amateur use of 2 meters and 70 centimeters was at an all time high while activity on 1.25 meters remained stagnant. In an attempt to increase use on the band, many amateurs called for holders of novice class licenses (the entry-level class at that time) to have voice privileges on 1.25 meters. In 1987, the FCC modified the novice license to allow holders voice privileges on portions of the 1.25 meter and 23 centimeter (1.24 - 1.30 GHz) bands. In response, some of the bigger amateur radio equipment manufacturers like Yaesu and Icom started producing equipment for 1.25 meters, however it never sold well and by the early 1990s, most manufacturers had stopped producing equipment for the band.

Reallocation

In the late 1980s, United Parcel Service /UPS began lobbying the FCC to reallocate part of the 1.25 meter band to the Land Mobile Service. UPS had well publicized plans to use the band to develop a narrow-bandwidth wireless voice and data network using a mode called ACSSB amplitude-companded single sideband. UPS' main argument for the reallocation was that the amateur use of the band was very sparse and that the public interest would be better served by reallocating part of the band to a service that would put it to good use.

In 1988, over the objections of the amateur radio community, the FCC adopted the "220 MHz Allocation Order" which reallocated 220 - 222 MHz to private and Federal Government land mobile use while leaving 222 - 225 MHz exclusively for amateur use. The reallocation proceeding took so long however, that UPS eventually pursued other means of meeting their communications needs. UPS entered into agreements with GTE, McCall, Southwestern Bell and Pac-Tel to use cellular telephone frequencies to build a wireless data network. With the 220 - 222 MHz band now left unused, the

FCC issued parts of the band to other private commercial interests via a lottery in the hopes that it would spark development of super narrowband technologies. It was the FCC's hope that development of these technologies would help them gain acceptance in the marketplace.

More on 220 next month.

Jerry, KA7RNX



Let's Join the 21st Century

The Constitution and by-laws committee spent many online hours researching different radio club constitutions across the United States. A lengthy time followed to read the massive download of official documents. Copy and paste, head scratching and more reading became the order of the day as the committee got closer to their goal. A lot of hard work went into its present draft form. This proposed document has all of the best elements and nearly bullet proof, if it were not for one slight flaw which lingers to this day.

Why can't we nominate potential officers in November, elect them in December and they take office on January first. That's how most other clubs do it. It isn't fair to the incoming officers to start planning their year in March, nearly the end of the first quarter. It's hard enough to get people to run and the letting them out the starting gate last!

Don't tell me that just because we did it that way for the past twenty years it still good today! Look at the good old U. S. of A. We celebrate our country's birthday on July 4th and we start the new year on January 1. But people are busy in December! Well, forty-seven came out to get free food at the December meeting. So, if we want to join the 21st Century, then I can support this new Constitution., otherwise I can't.

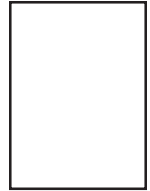
**COFFEE & DONUTS
EVERY WEDNESDAY MORNING**



**8:00 A.M.
TIL
10:00 A.M.**

**RATHDRUM
SUPER 1 FOODS**

KOOTENAI AMATEUR RADIO SOCIETY
P.O. Box 5222
Coeur d'Alene, ID 83816



Packet Net: The 1st. & 3rd. Thursday of the Month, at 19:30 hours on 145.510 simplex (*KARS Node*) (*connect to KARS, and enter Talk mode*)

2007 CLUB OFFICERS

President: Ed Stuckey, AI7H
208 457-0354 ai7h@arrl.net

1st Vice-President: John Hollar, N7JU
208 765-5470 n7ju@arrl.net

2nd Vice-President: Larry Telles, K6SPP
208 762-2548 ltelles@icehouse.net

Secretary: Linda Chamberlain, N7UTK
208 765-3144 lindafc@roadrunner.com

Treasurer: Chris Monroe, N7ZUJ
208 687-2251 ckay@my180.net

Newsletter Editor: Position Open

Repeater Tech: Jim Monroe, N7ESU
208 687-2251 n7esu@arrl.net

Webmaster: Larry Telles, K6SPP
208 762-2548 ltelles@icehouse.net

Notice

Propagation is published monthly by the Kootenai Amateur Radio Society (KARS). The club is located in Coeur d'Alene, Idaho and serves the North Idaho and the Spokane, Washington areas.

All opinions expressed in this newsletter are those of the individual contributors and not the radio club as a whole.

KARS operates a voice repeater on 146.98 and a packet repeater on 145.510 Mhz.

Anyone interested in Amateur Radio is welcome to join. Dues are \$12.00 (individual) and \$18.00 for a family membership. Contact the Treasurer if you wish to join.

If you know of anyone interested in joining KARS, you can notify the newsletter editor as to that parties email address. A copy of this newsletter will be send with no obligation to join.

Material can be submitted for publication in Propagation. The deadline for articles, etc., is the 25th of each month for the following month's issue.