How do I Join and get a Newsletter?

Did you pay your dues to FVARC, P O Box 7541, Kalispell, MT 59901? Club dues are $20 for the year (January through December). They will be prorated after June according to the month you join. 15$ is club fund, 5$ is repeater fund. Many people use the club's repeaters but don't pay the dues that support the repeaters. If this describes you and you feel even a little guilty we could use your support.

All first time licensed amateurs receive club membership free for a year. Be sure and register with our Treasurer, Barbara Magone KB7YMS, at 862-4066. All younger than 18 receive club membership for half price. **If you're not getting the newsletter and you should be, or you are getting it and shouldn't, then contact Ed Mahlum at 300 Leisure Drive, Kalispell 755-6673.**

President's Letter

Well another month has come and it's about time for another meeting of the Flathead Valley Amateur Radio Club. We have two big items we will be working on this month. It is time to vote on the changes to the bylaws that were published last month in the newsletter. I urge you all to read them
and be prepared to vote on them at the meeting. The second item is preparation for Field Day. We are making plans and need an idea of how many people will be coming to Field Day this year. We hope band conditions will improve by the time Field Day comes around.

73's Don Ross KJ7IZ

Sick and Hurting:

Minutes Flathead Valley Amateur Radio Club April 27, 1995

Meeting was called to order at 7:30PM by President Don Ross KJ7IZ. Motion was made and seconded to accept secretaries minutes as placed in newsletter. Motion was made and seconded to accept treasurer's report. The General Fund has $591.55, the Repeater Fund $506.06 for a total of $1097.61.

Introductions:
Given with 31 in attendance. New faces: Ed KD6CBN from Canyon Country California will be in the area for a few months is helping out at SemiTherm. He is a Tech Plus and likes to work 10 meters. New ham with his tech license is Geoffery Mc Million KC7IOM, he is looking for gear.

Old Business:
Field Day report. Wayne Ristine KE9XR got a tent from Army GP Medium about 20x24. they might even come up and set it up for us. Get it up there the Friday night before. Have four tables inside and have all four stations up the same day. Then will also have food table inside for hot dogs and hamburgers. 1$ a plate. We seem to be set for equipment, show of hands of those planning on attending. All plan to come, code users will be working code station, others can take turns working voice, and then will have the novice no code and technician station for extra points. Plus satellite/vhf station. Barb Magone KB7YMS is in contact with a television reporter who may want to take pictures for the TV station. Barb will need advanced notice on that.

Changes to the by-laws. Need to search and replace on the date as to when they are approved. Ed AA7TN will handle after the next meetings vote.

Don Ross KJ7IZ will get the Field Day Award Plaque moved to be on display at Radio Shack.

Books were setup and on display along with other ARRL materials:
Now You're Talking!, Instructor's Manual for Now You're Talking, Technician Class License Manual, Novice/Tech Class Instructor's Guide, General Class License Manual, General Class Instructor's Guide, Advanced Class License Manual, First Steps in Radio, Extra Class License Manual, You're Introduction to Morse Code (tapes), The FCC Rule Book.

Committee Reports:

Repeaters - W7VOS Rod Stickney will chair, WA7PHB Harry Lovering, W7HGM Nick Poncelet, N7SPI Tracy Robertson, KG7MO Darrell Christofferson (tower man) and KB7WIX Larry Magone.

Still considering putting an autopatch on the 146.82 repeater out of Whitefish.

RACES - KE9XR Wayne Ristine, KA5LXG John Blair, W7VOS Rod Stickney and WA7PHB Harry Lovering.

No report.

Field Day - KE9XR Wayne Ristine, KB7YMS/KB7QPS Barb and Gregg Magone, AA7TN Ed Mahlum, N7SPK Vern Wheeler, and KB6WBD Carlos.

Given above.

Education - KB7IPH Mark Skeels, and KC7HJ Russ Larson.

No report.

Presentation - N7EYU Roger Swearengen, AA7TN Ed Mahlum, KA6YSC/N6SLM Mark and Joann Miller, and WA9TAF Dennis Shaw.

Next meeting will be video tape on the South Sandwich Island DXpedition.

New Business.
George W7BKB contributed the following news events. Wayne Ristine and family were featured in the Flathead Electric Coop News for their use of a heat pump. Nice write up and picture of Wayne KE9XR, wife Barb and four of their seven(?) children. Larry Hoepfer W7BJT was in the Hungry Horse News with money donated to the United Methodist Youth Camp. Through the years they found money on their daily walks. It totalled 139.87. Thanks George for the information.

Presentation Wayne Ristine KE9XR on Building a Power Supply
All of our equipment requires a way to convert 115VAC to about 12VDC. Many HF rigs and transmitters require low voltage high current output. The three components of a power supply are the transformer, rectifier, and filter. Need to design for 20 amp. 12 guage wire minimum. 14 would be to small. Can wire transformer's in parallel to keep voltage the same, and handle more amps. Have to dampen out spikes with a capacitor across the primary, and resistor in series with secondary winding and a capacitor across the secondary. 600 volt .01 mfd AC rated for primary, 50 ohm 25 watt resistor in series with secondary and a .01 mfd, 50V in parallel. The simplest rectifier is a diode which gives pulsed DC. The diode only allows conduction in one direction. Wayne next showed the schematic for a half wave rectifier, and then a full wave bridge rectifier. When selecting diodes we need to look for current rating and peak inverse rating. The peak inverse voltage rating is the maximum voltage the diode will stand before it will break down and conduct in the opposite direction. This should be safe at double the output voltage. Can build with diodes in series to get the peak inverse rating up there. If 500 volt peak inverse on diodes and need them to handle 2700 volt output then put 12 in series. To increase current handling capability put them in parallel. When diodes are used in series we need to smooth out voltage drops, so build resistor and capacitor in parallel (usually about .01 mfd and resistor = 500 x peak inverse voltage, across each diode). When put diodes in parallel a resistor goes in series.

When we go to transmit and press a key we get an instantaneous voltage drop and current load. Our power supply needs to filter the peaks caused by changes in load. We do this with a capacitor filter. We also add a bleeder resistor to bleed off power when shut off power to the circuit. Wayne drew a complete circuit with fuse and on off switch. We then went through the selection of parts. Select primary transformer with 117 volt primary and secondary rated at 10 volt DC 20amp, because E(sec)=E(out)+2(Diode v drop about .7)/ 1.41. Capacitor for filter C=current out(t) timeconstant/ E(p-p).

Reminder to **renew your ARRL membership** through the club. Each time we do this the club receives back $2. See or call KB7YMS Barb Magone at 862-4066.

Raffle started at $1 per ticket for the Swan 1200-X HF 400 watt amplifier. The amp is up and running at the club station according to Gary Ax KB7KXE. Tickets will be taken until the July meeting at which a winner will be drawn from the can.

Motion made to adjourn by Vern Wheeler N7SPK. Meeting adjourned for coffee and cookies.

N6SLM JoAnne Miller got coffee water started and cookies. **Thanks JoAnne!!!** 2030MST. Respectfully submitted Ed Mahlum.

Coming Events:
May 20 Saturday -------- Amateur Exams Kalispell
June 4 Sunday ---------- Lake Koocanusa Bicycle Ride
June 24 Saturday ------- Field Day Ashley Mountain
July 14-16 Fri-Sun ------ Glacier Waterton Hamfest
August 5-6 Sat-Sun ---- Spokane Hamfest
August ?? ---- Big Arm Picnic
September ?? ---- Flathead Valley Bicycle Tour Huckleberry 100
September ?? ---- Next Highway Cleanup
February 96 ---- Race to the Sky

Club HF Station:
Club station up and running at KB7KXE Gary Ax's house. If you want to use it get a hold of Gary.

Jobs:
Club Trustee: WA7PHB Harry Lovering
Emergency Coordinator: KE9XR Wayne Ristine.
Coffee and Cookies: N6SLM JoAnne Miller.
Property Manager: KB7KXE Gary Ax.
Movies: N7EYU Roger Swearengen
Librarian/Historian: KB7IPH Mark Skeels

Remember encourage all hams to join the ARRL, it is our best voice to help our existence. Some may love HF, others DX, some VHF and UHF, some packet, some satellite, some CW, some computers and repeaters; but it we don't work together to preserve our frequencies nobody else is going to do it for us.

Board of Director's Meeting

Board of Directors:
President - Don Ross KJ7IZ - 7567171, Vice President - Wayne Ristine KE9XR - 2574162, Secretary - Ed Mahlum AA7TN - 7556673, Treasurer - Barb Magone KB7YMS - 8624066, Trustee - Harry Lovering WA7PHB - 7528388, Gary Ax KB7KXE - 7559353, Tracy Robertson N7SPI - 7551795, Mark Skeels KB7IPH - 7520073, Rod Stickney W7VOS - 7554850.

May 11, 1995
5:30PM at Lighterside

1. Call for Bills and expenses needing to be Paid. Ed Mahlum will be paid for newsletter expenses.

2. Treasurers Report. Approved $595.69 in general fund, and 576.55 in repeater fund.

3. Copies of the revised by-laws and constitution were published in April newsletter. They will be voted on at May meeting then they will be finalized with the right date after being approved.

4. Club dues. During Field Day we will send out a letter to every known amateur in the Valley. It will be our intent to have a half year membership drive. For $12.00 we will accept new members with full privledges from July 1 through December 31 of 1995. Of the $2 per month fees $1.25 will go to general fund and $.75 will go to repeater fund. Ed Mahlum has the list from the callbook of all amateurs in valley. Wayne Ristine will do the letter. Tracy Robertson will handle printing and perforating. We will all stuff envelopes. Dues will increase to $24 a year in 1996.

5. Committee reports:

a. Repeater (resources repair and future direction). Rod Stickney, Harry Lovering, Vern Wheeler, Nick Poncelet. None.

b. Education (training of Hams). Mark Skeels, JoAnn Miller, Mark Miller, Russ Larson. None.

c. Field Day. Wayne Ristine, Barb & Greg Magone, Gary Ax, Tracy Robertson. We are going to try to work 2A. The main SSB station will be KE9XR's rig, with club tower, beam, generator, computer logging, inverted V for 40, 80, 160. The main CW station will be KJ7IZ's with generator, tuner. We need a power supply and an antenna for this station. Novice station will be club's TS520S with 10/15/40 dipole, tuner. We need 4:1 balun and CW key for this station. Carlos KD6WBD will be bringing Sattelite station. Need operators and to begin coordinating teams. All three stations will be run out of the tent Wayne got from the Emergency Services. If the weather is not perfect there will be a backup location at either Wayne Ristine's or Ed Mahlum's place. It was agreed to provide hamburgers, hot dogs, buns, beans, chips. Each person is to bring own beverage and eating utensils. There will be dinner for a buck a plate on Saturday afternoon and eggs, sausages, and bagels for a buck on Sunday morning. Barb Magone and Barb Ristine are heading this up. People will need to sign up for the food so we know how much to buy. There will be a gas grill setup and you can cook your own burger, dog, breakfast etc. Be sure and get in touch with Wayne Ristine KE9XR and leave word that you will be there. Each member coming should bring some type of salad to share with others. Don Ross KJ7IZ will get the portable outhouse.

d. Emergency Communications. Wayne Ristine, Rod Stickney, Harry Lovering, Jon Rashleigh, Mike Tuszynski. No report.

e. Presentation (Program for Club Meetings). Roger Swearengen, JoAnn Miller. Ed will bring tape on DXpedition for May meeting. June meeting will be at Gary Ax's place for final preparation for field day. Plans for picnic in Woodland Park this summer and to get Dick Lindeman KC7ALP to give presentation on wiring in automobiles and setting up a rig in such.

6. Gary Ax is working on a list of the club equipment.

QCWA Dinner

Word has it there was a lot of fun and fellowship at the QCWA dinner and meeting. George Hanson W7BKB fills us in:
The Treasure State Chapter of QCWA held the Spring meeting in Columbia Falls on Saturday, May 6, 1995. Twenty six members and guests enjoyed a good lunch prepared by the Nite Owl Restaurant, meeting in the Back Room. Ken Kopp, K0PP, the current president, held a brief business meeting after the luncheon. He then showed slides of a recent trip he and his wife Rose made to an island in the Caribbean.

The beautiful landscape and the blue ocean waters were almost as impressive as the Ham Station available to visitors. A lady Ham rents a small house on her property to hams; and the place comes complete with an antenna farm and station equipment. It may not come cheap, but to a dedicated DX hound it is a dream come true.

George showed a few slides of early years at the Glacier Waterton Hamfest, and some of Anaconda and Butte ham activities. As the QCWA has many long time Hams, these older slides were of some interest. The meeting adjourned early, as we had Hams from Canada, eastern Montana and Anaconda who wished to get back home before dark. We were pleased to have several visitors from the Flathead Valley amateur group attend the meeting, as well as our own members.

The next meeting will be an informal gathering of all QCWA members who may be attending the Glacier Waterton Hamfest in July. Anyone who had a license at least 25 years ago is most welcome to join us and the National Organization. Besides the fun and fellowship, we do sponsor a number of scholarships for your Hams who wish to go on to higher educational levels. There were 7 scholarships in 199-95 of $700 each. 73's George.

Flathead Flyer BBS

KJ7IZ Don Ross' bbs now has the current call book available. Just dial in and look up a callsign for information. The number is 756-1369. Don mostly runs the BBS for free but he has expenses. The suggested donation is $10 a year.

Form 610:

Ed Mahlum (AA7TN) has new form 610 with expiration date of 8/31/96 via the W5YI VEC testing team here in the Valley headed up by Darrel Christofferson KG7MO. They will not process the old forms any longer.

Montana Callbooks:
The new 1995 Montana Callbooks are available from the Flathead Valley Repeater Group, PO Box 808, Bigfork, MT 59911. $ 8.00 provides inserts for an existing book if you already have the cover and binders or $10.00 includes shipping and handling.

Ham Exams:
The next exams will probably be held in July at the Glacier/Waterton hamfest. Locally they will probably be held September 23, 1995 at 1PM at the Daily Interlake Building in Kalispell. Bring a copy of your license for upgrading, a current photo id, $5.90, and some pencils. If you have any questions about time and place call Darrel 756-8633, Ed AA7TN at 755-6673, Wayne KE9XR at 257-4162 or Harry NV7K 755-9658.

For Sale Wanted or Trade:
Feel free to bring stuff to the Club Meetings that you would like to sell or trade.

Ed Mahlum AA7TN 755-6673 has a new Kenwood PB-8 battery for $35, a PB-6 for $20 with BC-6 charger. MFJ Tuner $30.

Bill Brady AA7HM 257-2297 has a Cushcraft AOP-1 OSCAR Satellite antenna system. It contains the 416TB uplink, the A144-20T downlink, the A14T-MB mounting boom, and all necessary hardware. He is looking for about $100.00.

Wanted JoAnne and Mark Miller N7SLM/KA6YSC are looking for a crank up tower get a hold of them at 755-2771.

Some QST Notes

Ramsey Electronics FX-146 2-Meter Transceiver Kit
Author-Bloom, Jon - KE3Z
Source-QST Oct 93, pp. 73-74

Among the electronic kits that Ramsey offers are test equipment and general hobby-electronic items, plus several amateur products. One is the FX-146 2-meter FM transceiver. It covers 140-180 MHz. in 12 discrete channels, selected by a 12-position switch. The local oscillator is synthesized and the 12 channels are selected and hard-wired during assembly.

The front panel has only two knobs, Volume and Squelch, the 12-position switch, an LED indicator that signals when the unit is transmitting, and two jacks for microphone and speaker. The jacks are spaced so that they will accept an ICOM-compatible speaker/microphone accessory plug.

The reviewer built a unit following directions in the manual. They instruct the builder to proceed one sub-section at a time and not to continue until each is operating properly. His opinion is that the manual and instructions are "pretty good" but inexperienced builders may want some help from more experienced hams.

The completed transceiver performs with acceptable sensitivity but with limited dynamic range. Its front-end filtering has a broad band-width which allows it to be used for receiving information and commercial frequencies but leaves it open to interference caused by intermodulation distortion and also by images.

The reviewer's final summary was: "Inexpensive and relatively easy to build, the FX-146 will get you on the air, but with less than factory-built performance."

Title-HK1:More on Coax-Cable Connector Installation
Author-Collins, Lewis D. - W1GXT
Source-QST Oct 93, p. 75

The writer offers some hints about the best and most reliable way of soldering PL-259 plugs on the ends of coax cable. His approach is similar to the instructions that are printed in common amateur

literature with two exceptions:

First, he strongly advises the use of a 100-watt soldering iron such as the American Beauty Model 3138. The editor interjects a note that such irons are routinely used by stained-glass artists. Anyone who has difficulty finding one for sale in electrical/electronic outlets should check the Yellow Pages under "Craft Supplies" and "Glass-Stained and Leaded".

Second, he suggests the plastic outer sheath as well the dielectric be cut with a dull knife so that it will be less likely to nick the braid or conductor underneath it.

He advises the following steps:

1. Remove 3/4" of outer sheath without nicking the braid.

2. Using the soldering iron, quickly tin the braid for at least 3/8" starting at the end of the outer sheath.

3. File the solder on the braid to a uniform thickness.

4. Using the dull knife, (better yet, a tubing cutter), cut through the tinned braid and part way through the dielectric, 5/16" from the end of the jacket. Be careful not to nick the center conductor.

5. Grasp the small piece of dielectric that is not completely cut off and twist it with pliers back and forth to break it loose along the cut.

6. Put the connector on the end, solder to the braid through the four holes around the connector, and solder the center conductor in the center pin. Snip off any excess length of center conductor that protrudes through the pin.