

Newscaster

The Official Publication of the Winnipeg Amateur Radio Club
The Manitoba Repeater Society
The Winnipeg Seniors Citizen's Radio Club

mailing address

W.A.R.C.
Attn: Newsletter
598 St. Mary's Road
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January 1994

Where do we go from here?

(or how to upgrade your licence)
Speaker VE4GV

Date: January 10, 1994

Time: 7:30 p.m.

Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

WARC:

Apr 9 - Worked all Wpg Award

WSC:

MRS:

Other: Every Sat. & Sun. VE4TTU station in operation

Warc: Executive for 1993/94

President: Dave Panting - VE4EF

Vice-Pres: Barret Filbert - VE4ABA

Secretary: Dick Maguire - VE4HK

Treasurer: Gary Smith - VE4YH

Past Pres: Judy Norton - VE4JBN

Membership/Newscaster: Kay Quinn - VE4YF

Program Chairman: Rob Kaufman - VE4GV

Flea Market: Pat Giesbrecht - VE4PLG

Members at large: Scott Marshall - VE4WSM

Notes from your Editor: by Derek, VE4HAY

First, I would like to thank David VE4DAR for taking up my quest to find a Santa Claus who is not radio shy. Not to bad a job for a person of a different religion, but then again we are in a politically correct society. (not bad, 2 out of 3 subject not to talk about all in one sentence)

Next I would like to thank Bill, VE4WU the outgoing president of The Winnipeg Seniors Citizen's Radio Club for inviting me to their Christmas party. While I may have been the youngest person there I had a very enjoyable time, and was treated as if I belonged there (still 25 years to wait). I am told that Rod VE4TM will be submitting an article to us very shortly on some news he has about ARES. He has had some interesting meetings and will enlighten us shortly.

News has it that we might soon have a new internet gateway on packet one again. The messages coming out the WARP group indicate that they are working on re-establishing the gateway, as well as upgrading the backbone to all 9600 or high baud rates. This will greatly increase the amount of traffic that can be passed. Please watch the packet bulletins for more info.

If you haven't already done so, please take the time to write to your new MP in Ottawa, and inform him/her about the gross injustice that is happening to the limited spectrum, in regards to the 220 MHZ area. This is currently assigned to Amateurs only and we are about to lose it, so that we Canadians can stay compliant with the Americans. If you check your spectrum allocation chart the 220MHZ is the last of Amateur only after 2 meters.

Ralph has taken a sabbatical from his regular Reg's column and if anyone would like to take over this please send you reg's question (or any other comments or articles) to me either on packet {ve4hay@ve4KV} or on internet at dwjhay@muug.mb.ca.

Words from the President of WARC: by Dave, VE4EF

I would like to thank all of you who came out to the December meeting/Christmas party. Thanks to Judy VE4JBN for organizing the consumables (GOOD STUFF!) and to Rob VE4GV for organizing the first annual WARC Christmas Sprint Contest and to Dick VE4HK for organizing the Christmas Mug Contest. I enjoyed all of these activities and hope that you did too. Please come to me or anyone else on the executive with your comments or suggestions for what we might do next year.

On December 17 I attended a celebration in honour of the twenty-plus new hams that joined our ranks that day courtesy of the Rick Lord School of Amateur Radio. On behalf of WARC I congratulate all of the new graduates and welcome them to our hobby. In the next little while we will be hearing lots of unfamiliar call signs on the air and seeing some new faces at our meetings so please take a moment to introduce yourselves and get acquainted with one another.

Our presentation topic for the January 10th meeting will be "Where do we go from here?" (with apologies to Marti Lane OH2BH) or "Upgrading in the Hobby and How to do it". I expect that this will be only the first of several discussions on this subject and hope that this will be of interest to veteran as well as new hams because so much about the hobby has changed that we can all benefit from this sharing of experience and information. I look forward to seeing you all at the meeting.

Winnipeg Senior Citizen's Radio Club. by Martin, VE4AKA President.

HAPPY NEW YEAR ! Our Annual General Meeting was held on Dec 16, 1993 and the new Executive is looking forward to an interesting and challenging year of Office. Among other projects, we are confident that Fast Scan TV will be on the air from 598 St Mary's Rd. Also, we will be introducing training on computer basics and Packet Radio for our members. Look for an expanded slate of social activities with greater emphasis on XYL involvement. We expect these to build on the success of our Club Breakfasts, the Annual picnic, and the Xmas Party which was attended by over 70 members, XYL's, and guests. On the radio side, our duty operators will be heard offering DX assistance for contact with amateurs in Winnipeg on HF, and local assistance for visiting mobiles via 2M. Our membership is now up to 134 with the addition of the Fall Basic Exam Grads. On a sad note

however, we mourn the passing on of Ed Lussier, VE4AAT, a well known and respected Amateur. He will be greatly missed, and our sincere sympathy goes out to his family. Our very best wishes to you all for 1994....73's.

Manitoba Repeater Society by Derek, VE4HAY

Welcome to a New Year of Amateur Radio. In New Year, I really mean it, as this is both the start of a new calendar year, as well as the start of a new year for MRS. For those of you who have re-new'ed your membership, I thank you, for those who have not, please consider it A.S.A.P. If there is some reason why you are not renew'ing please let me know. If there is something we have done wrong I would like to correct it and try to bring you back.

We are almost done our linking project (phase I). We have signed the contract for tower access in Portage La Prairie, and the next step to top rig the tower and aim antenna's at VE4NEP and VE4MAN. This will complete the west link at this time. The next step will be to relocate the VE4MIL repeater for better coverage, and then aim a UHF antenna to VE4FAL. As I type this right now, the technical crew is busy devising ID boards, Notch filters, and Squelch cards for the various repeaters and intermediate links. These are needed to properly ID the radio's and to notch out the ID from links down the road. The first station to get the new ID'er will be the VE4CDN station. Followed by VE4WPG and VE4VJ.

Any one who would like to help with the building of the ID boards etc, please contact VE4STW.

On another note, if there are any clubs who would like to order some UHF radio, (motorola) please let VE4HK know about it. We are about to place an order for another series of them.

SANTA ON THE AIR By David, VE4DAR

Prompted by two articles in TCA, Derek VE4HAY asked Santa Claus to talk with children on two meters after the MRS "information, emergency training and swap net." On Sunday, December 19, Santa logged 15 stations with children who wanted to QSO. Among them was VE4CAT, operated by Joshua, newly-licenced as Manitoba's youngest Ham.

The 24 children ranged in age from 2 to 17 years. Jonathon told Santa that his favourite subjects in school were phys. ed., maths, and library. Hilliary was looking forward to being at the farm for Christmas. The clarinet keeps Cristall challenged. And Jamie is thinking of tackling CW for his licence.

Santa reminded children to think of others at this time of year: those who are alone or in hospital and would appreciate a visit or a phone call. Some of the boys and girls talking with Santa were asked to name his reindeer. Everyone remembered Rudolph.

After the "Santa Net", several calls suggested this activity was worth repeating next year. Santa expresses sincere appreciation to members of the WARP (packet) Net for giving up their usual air time. May all of us enjoy good health, peace and enjoyable QSO's in 1994. 73 de Santa (VE4DAR)

MINUTES FOR W.A.R.C.

WARC GENERAL MEETING DECEMBER 13, 1993
Meeting began 7:37pm VE4EF presiding

VE4EF made a few welcoming remarks.

Each person present identified him or herself.
Approximately 75 in attendance

Minutes of November meeting approved as published in the Newscaster

moved VE4MJM, seconded
VE4AJR Carried

Business Arising

There was no correspondence, aside from memberships

Treasurer's Report

VE4YH announced that there was a \$285.00 expense for printing, otherwise nothing of note

Standing Committee Reports

- VE4OV, our amateur class instructor, advised that 27 students either had written in the last few days, or would write their exam by the end of this week. The next course will begin January 20, with a cost of approximately \$180.00

- VE4HAY, our Newscaster editor, thanked all contributors to the December issue. He also requested that "someone" volunteer to act as Santa Claus on 2 meters. This will be similar to the articles in December 1993 TCA magazine. (VE4DAR "volunteered" for the task)

- -VE4JR, Section Manager for RAC in Manitoba, announced that RAC forgot to put in a notice of election for SM in TCA magazine. If anyone is interested in running for SM, contact VE4JR for details. The notice of election will run in February TCA.

- VE4YU, speaking for VE4TTU, thanked all those who volunteered their time at VE4TTU, including the following VE4's: ACX, AJR, SE, XYL, HK, SN, JBN, II, MJM.. VE4AJR advised that, if any new hams were shy about going down to VE4TTU, he would be pleased to go down there and help the new hams out.

New Business

- VE4MJM gave a very sincere apology for his part in causing the packet gateway at the University of Manitoba to be taken off the air.

- -VE4YF gave an excellent presentation on the purchase of Winnipeg Amateur Radio Club jackets. We can buy a summer jacket, complete with embroidery, for \$57.00 complete. A fall weight jacket will cost \$70.00 each, and a winter jacket \$90.00. All jackets must be the same style. They must be ordered in groups of at least twelve. There will be an inside pocket for carrying a handheld, in the fall and winter weight jackets. The summer jacket is not strong enough to support a handheld. The jackets will have a quilted lining. The tailor will come out to the January meeting if there is enough support, and measure anyone who wants a jacket. (made to measure!!!) We can also purchase a golf shirt, for approximately \$20.00, including embroidery. A discussion followed, concerning styles, delivery times, etc. At least 30 people indicated that they would purchase a club jacket. Everyone interested was advised to bring their checkbook to the January meeting.

- VE4EF stated that our financial books must be audited. After some coercion, VE4YU volunteered himself, and VE4SN.

- VE4EF asked permission of the membership to purchase ten Baycom packet TNC's by WARC, at cost, (about \$35.00 ea) to sell to amateurs later.

Motion: I move that the Winnipeg Amateur Radio Club Inc. purchase ten Baycom TNC's, at a cost of approximately \$350.00, to be sold at cost to amateurs, once the present building program is complete.

moved VE4JR,
seconded VE4DSL

There was no discussion
CARRIED

- VE4ADS asked if WARC was still involved in the national nametag program.

VE4KX replied no

- VE4ADS announced that the Eastman repeater society met for coffee in Oakbank each Tuesday evening. Contact John for location, since it floats around.

- Vern VE4VQ made a very spirited presentation of his summer canoe trip with the Boy Scouts through Saskatchewan and Manitoba.

- Wayne VE4WR made a quick presentation on a new antenna system, for Direct Broadcast Satellites, with excellent applications for amateur radio use. This system is very broadbanded (about 600MHz) and inexpensive.

adjournment 0855
VE4EN

After the business portion concluded, everyone adjourned to the cafeteria, for a much appreciated Christmas party. Santa's chief elf, Judy VE4JBN, and the rest of her elves did a wonderful job, transforming the cafeteria into a Christmas wonderland of food and drink. (Those chocolate chip cookies were excellent!!)

We ran three contests during the evening. Kay VE4YF, won the "decorate the DXmas tree" contest, with a silver and ruby red garland. The ruby red beads spelled out "Merry Christmas and Happy New Year" in CW. Kay claimed that her pet bird was a big help in the construction of the garland.

There were only a few entries in the Christmas mug contest. I thought that MY Christmas mug was the best, but since I was judging, I was ruled ineligible. Anna VE4ANA, ended up with the best Christmas mug. You will have to ask her for a description of her mug.

The third contest was organized very well by Rob VE4GV. He came up with a very interesting concept. All entrants were to circulate around the cafeteria, with pen and paper in hand. They were required to get the following information from as many people as possible: call sign, first name, year first licensed. The person spoken to also had to initial the entry to prove that the contestant had spoken to him. The object was to use the second letter of each suffix in a call sign, and to get each letter of the alphabet. The first person with all 26 letters would be the big winner. Ray VE4PT ended up with 47 calls on his sheet.

Each winner received a lovely candy tray, as selected by VE4HK

ANTENNAS 'R' US: BY EGGROLL FOXTROTT

'Twas the week before Christmas and all through the HF bands not much was stirring, not even the nets. . . So when my friend, Goofy Hatt (Greg VE4GH) called me on the landline (conditions were re-ealy poor) and asked me if a would come over and help him with his Bazooka I thought that he was ready to end it all. After all, a DX-er with no DX to work is a pretty desperate individual so I raced out to Transconia to see what was up.

When I got to the door I was met by The OZ (Goofy Hatt's lifelong ham companion Diane VE4OZ) who was wringing her hands and mumbling about a world-wide shortage of wire. It turns out that the "Bazooka" was an 80 meter folded di-pole antenna consisting of what appeared to be a few miles of tangled coax. Goofy Hatt thought that it would be a great idea if I helped him string this monstrosity from his tower and was busy with a calculator trying to figure out how many of his neighbours' yards he would have to cross to make it work.

In the end it turned out that the Bazooka was in fact only about 130 feet long and it only took me 15

minutes to untangle the mess while hanging from Greg's tower and we did manage to make it fit into his standard size city lot. Having finished tying the ends of the mighty Bazooka to a chain link fence and a pine tree we retreated to Goofy Hatt's shack to see if this thing would really work. Lo and behold, the SWR was great and there were signals to be heard on 80 meters. What a success!

Since the traditional bands for which most people have beams (10, 15 and 20 meters) have been closing by 6 or 7 pm local time, there hasn't been a whole lot of radio activity in the evenings for people like me. So I decided that I had to have one of these and got my revenge on Goofy Hatt by having him hold the ends of my Bazooka while I put it up on Boxing Day, the coldest day of the year. Since it was much colder outside when I put up my antenna than Greg's, mine will work better.

The whole point of all this is that even though 40 and 80 meter antennas are difficult to fit into city lots, it can be done with very little expense and will give you the opportunity to work the HF bands in the evening. During the past couple of days I have worked stations from both coasts of Canada and Florida and South America. Pretty good going for a chunk of wire put up as a "compromise" antenna. Thanks to Rick VE4RA for inspiring Greg and myself and for providing us with the measurements. If anybody else is interested in putting up a similar antenna please feel free to contact me.

WORKED ALL WINNIPEG AWARD QSO PARTY By Dick, VE4HK

The 1994 edition of the Worked All Winnipeg Award QSO Party will be held on April 9, 1994. Further details as they become available.....

HINTS AND KINKS By Dick, VE4HK

A little tip to make soldering easier. Wrap about a foot of solder around the power cord of your soldering iron or gun. This way, you will never have to look for solder when you need it.

Mighty Unusual People By Tedd, VE4VID

Over the years I've enjoyed many pleasant hobbies. One I wanted to become involved in for about 40 years

was Amateur Radio. Hams as they were always referred to at home were lucky guys. Didn't meet but a few and all were men. I was informed that they were called hams because they were always "hamming it up". I got my wish after several times checking into it over the years. In 1991, I was introduced to Martin , VE4MPH who invited me to a WARC meeting. There he introduced me to Tom VE4AKI who was going to conduct a Basic Course in a couple of weeks. Needless to say I was enrolled the next day.

From the start I was amazed to meet so many people who gave of their time and valuables from the box in the corner of the basement. I can't recall a more dedicated instructor as Tom was. Such determination to help others start in his favourite hobby. During our course we had several guests who came to share an area of particular interest to them. Definitely unusual people.

On graduation I purchased a mobile 2m rig and used an old battery to power it. A regulated power supply was definitely in order. I mentioned it to someone on a local repeater and soon I had a schematic, and case. A knock at the door and a hand full of transistors, rectifiers, and electrolytics were placed in my hands. Numerous suggestions and many doodles on napkins at the Arches helped finish the planning. Yes knowledgeable, giving, and unselfish, these are most unusual people.

In the last two years I've met so many helpful, and unselfish people giving of their time and resources to help others enjoy their hobby. All the community related efforts don't impress me as much as the goodness of so many people who help another. What's left to do? Keep on folks as there are others who might not realize a dream if you aren't there to lend the help and encouragement along the way. Yes, we need more unusual people in our world, who give freely of themselves. Thanks to each of you.

MORE HINTS AND KINKS **By Ralph, VE4RY**

How would you like a couple of continuous test signals, one weak, one strong for comparing and evaluating two meter antennas and sensitivity tests on radios? In Central Manitoba we have these signals available. They are just barely above the two meter amateur band and therefore should give valid results to our tests. They are the outputs of commercial trunk repeaters, located somewhat north of Winnipeg and operating on 148.015 and 148.165 MHz. The lower frequency can be received on just about any base antenna or mobile, and the higher frequency is strong

enough for hand-helds. Tuning in on these 'test' frequencies eliminates the need to (perish the thought!) kerchunk ham repeaters, or scan the band looking for a QSO to monitor. As a precaution, leave your radio on -600 KHz offset, since it is illegal for us to transmit on these frequencies. Good luck with the antenna projects in '94

VE6 - CALGARY **By Dan , VE4SYG**

Hi there Calgary, Alberta from Winnipeg, Manitoba. VE4PLG and VE4SYG visited the city of Calgary during the last week of November to partake in Grey Cup festivities. Well it was memorable; there were so many events going on at once it was hard to decide what to do. First of all we met many amateurs in person and on the air waves who helped us in so many ways to make our stay in that city so enjoyable. We don't have enough space to thank all of the amateurs in Calgary who did so much.

For those who were looking for our poster in the Grey Cup parade it wasn't there because the parade wasn't televised. Anyway we made it to their version of breakfast at the arches on Saturday morning. The CARA (Calgary Amateur Radio Association) meets at Chinook mall in the food court with about fifty to one hundred attending all the time. We got to meet some very interesting people there. We were able to get tickets to the opening ceremonies of the Grey Cup thanks to VE6COR. We also monitored two repeaters and simplex during this event and found a very professional group on the airwaves which is to be commended. Afterward we were able to meet two people from the mobile command post, we can't remember their call signs, sorry, they were able to tell us much about their ARES program and other programs they have in place; they get all classes of licensed amateurs involved in their programs.

During discussions with amateurs from Calgary we were asked when we will be joining IPARN so we can communicate via two meters across the country.

We were able to observe the lunar eclipse on Sunday evening and it was an event to remember. For those of you who are stargazers and missed it the eclipse peaked into totality at about 23:38 local in Calgary with a bright sparkle in the lower right quadrant. That was worth the wait !

We were able to ride several times on the LRT which is affectionately known as Little Ralphies Train ; I'm not kidding VE4RY that's what they call it, and it was very enjoyable and quite reasonable to travel by.

Many thanks to all our new freinds that we met on the air waves and especially
VE6COR Bruce, VE6HJH Howard, VE6LLF Lisa, VE6NSS Neil, and VE6OTC John.

Also hello's from
VE6OTC, VE6NSS, VE6LLF, and VE6KX Henning to VE4KV Doug, VE4CY Jim, VE4UB Bill, and VE4DRK Dan.

THE EGGROLL FOXTROT QUIZ

Given all the discussion at last month's meeting about upgrading and learning CW, this month's quiz will centre around the fine art of brass-pounding.

It is a dark and stormy night (but not an electrical storm!) and you have just sat down in front of your rig to get on HF using CW for the very first time. After listening with trembling fingers for what seems like an eternity you decide to answer a CQ from a W6 who is ending at about five words a minute. When you are finished sending him your callsign, QTH, signal report and the name of your cat he comes back to you with a long transmission that ends with "dit dit dah dah dit dit" (?).

Q. Being an intrepid ham, and an initiate of the brass pounders' league, you:

1. Scream in terror.
2. Immediately turn off the rig and tell everyone that you were watching TV that night.
3. Tell the other ham that you can't copy him due to QRM".
4. Tell the other ham that there is an emergency in your home and you have to QRT!
5. Tell the other ham to QRS.

LESS IS MORE **By Tom, VE4AKI**

Have your H.F. contacts become dull? Has H.F. operation lost its "Spark"? Has checking into nets become too routine? Looking for something new? Why not try QRP.

QRP is the international Q signal for "Shall I reduce power". Just what power level is considered QRP. Most QRPers consider 5w output (10 w. PEP) or less QRP. Most modern transceivers will operate at this level on C.W. by turning down the gain control. Some

transceivers have a gain control that adjusts the power level in both C.W. and SSB modes. If not the microphone gain can be lowered to reduce the output for SSB operation. A wattmeter that reads at this level is desirable.

Do I need to change any other parts of my station to operate QRP? If you have good results with your present system you should have good results with QRP. The two most important components in your system are the antenna and your operating techniques. A beam would best, but a dipole or vertical mounted in the clear will bring good results. Be sure to use low loss feedlines as every watt counts. Keep power robbing devices such as antenna switches & tuners to a minimum.

CW is the most popular mode but good results can be had on phone as well. The most critical factor is the operating technique. The two most important tools in your operating toolbox are your ears and patience.

Listening to determine band conditions and propagation, as well as checking W.W.V. will prevent wasting time on a poor band. Calling CQ is generally not very productive. Listening and calling stations you want to contact will be more productive. When operating CW use a code speed of 8 - 12 WPM and repeat your call two or three times when establishing a contact. Don't hesitate to mention you are QRP as it may encourage the other operator to pull you through if conditions are poor, as well as it provides for an interesting topic of discussion. Give honest signal reports if you expect to get the same. Listen for other QRPers on 3.560, 7.030, 7.040, 14.060, 21.060 & 28.060 MHZ.

What about working DX? Operating a station with a handicap of 2 - 3 S units is a real challenge but very satisfying results can be achieved. Five watts of R.F. , a modest beam @ 30 feet and lots of listening has resulted in 46 states and over 55 countries worked from this operators station.

The most productive technique here is again listening. Listen for the weak signal. listen for that distinct warble of a DX signal. Listen for stations tuning up and checking the frequency. Being first in line to call will improve your chances of a contact. If you run into a pileup don't give up. Listen to how the DX operator works. Does he answer the loudest signal? The tail-enders? Is he working by call areas> it may take many calls but persistence will often bring results. If you are not successful try listening at the same time and frequency for the next few days. You may have a second chance.

Most all operate and enjoy the contact you make. Share a bit of yourself with each person you contact and you will be rewarded by many enjoyable QSO's. See you on the bands.

CLUB JACKETS

By Kay, VE4YF

As mentioned at the last meeting, we have done the research into getting Winnipeg Amateur Radio Club jackets. We can buy a summer jacket, complete with embroidery, for \$57.00 complete. A fall weight jacket will cost \$70.00 each, and a winter jacket \$90.00. All jackets must be the same style. They must be ordered in groups of at least twelve. There will be an inside pocket for carrying a handheld, in the fall and winter weight jackets. The summer jacket is not strong enough to support a handheld. The jackets will have a quilted lining. The tailor will come out to the January meeting if there is enough support, and measure anyone who wants a jacket. (made to measure!!!) It appears that we have enough interest and we will proceed with the order. **So if you would like a club jacket please come out to the meeting.**

RADIO AMATEURS OF CANADA (R.A.C.)

What is a Radio amateur

One in every thousand of your neighbours has passed Canadian government examinations giving them the authority to use radio equipment of self education, and service to the community. Amateurs are also known as Hams; some are old, middle-aged, just entering high school, blind, or quadriplegic. There is no age limit to becoming a licensed Amateur operator. The service they provide is unending and often using. Canadian Amateurs have provided essential communications for : forest fires in B.C., the devastating tornado in Barrie OT; the San Fransisco earthquake; the Mississauga, railway derailment, help military personnel on active duty to communicate with their families. Every day somewhere Amateurs help their neighbours, by passing a message for them, or calling a service station for a motorist in trouble, by using their car radio equipment. Recently one Amateur called up a search & rescue helicopter to list an injured youngster from a cliff top.

Most of the time their radios are used for enjoyment. They talk to other Amateurs across Canada and around the world. The exchange QSL cards by mail, so that the story about talking to Australia is believed. They pass messages from one Ham to another, until the destination is reached - essential practice for times of disaster.

When tornadoes struck Barrie the Amateurs were there without waiting to be called. They went straight to the disaster ares, risking their lives, for who knew when another tornado would strike. Power was provided by Amateur emergency generators and thousands of messages were passed for the Red Cross, municipalities, police & fire departments and relative desperate for news.

Group of Amateurs build satellites to relay amateur communications worldwide. These are mostly multinational efforts, with Canadian, American, British, German, Japanese and Soviet Amateurs contributing, for amateur radio knows no frontiers. Amateurs have connected their computers to radio transceivers; others send television pictures around the world and bounce signals off the moon.

You may find them sitting beside their equipment, at home or in the car, talking to an Amateur, perhaps a few thousand miles away. Their home are often indentified by a tall tower with antenna(s) and their cars often carry a licence plate with their personal callsign such as VE4GLH, each province having a different number.

Amateur radio also has a friendly, social side. Many towns have an Amateur Radio Club, where they together to talk, hear lectures on aspects of Amateur Radio, and plan emergency exercises and Field Day - a yearly event combining a good time and a test of emergency communications. The clubs run classes for aspiring Amateurs and those who wish to upgrade their operator's certificates. They organize assistance to local groups planning marathons, street parades, patrol the town at Hallowe'en, and demonstrate Amateur Radio in schools and shopping malls.

Radio Amateurs of Canada Inc. (RAC) is the national organization looking after the interests of all Canadian Amateurs. For more information write : P.O. Box 356 Kingston, OT. K5L 4W2

A Word About RAC

RAC, the Radio Amateurs of Canada Inc., is a National Organization for radio amateurs licensed by the Federal Government.

RAC is organized for the promotion of Amateur Radio communications and experimentation, for the establishment of Amateur Radio networks capable of providing communications in the event of disasters and other emergencies, and for the representation of Canadian radio amateurs, nationally to the Federal Government and internationally as Canadian

member-society of IARU, the International Amateur Radio Union.

RAC is incorporated as a non share capital corporation under the Canada corporations act. RAC is governed by a seven-person Board of Directors elected on a regional basis by the RAC membership.

Although the only essential qualification for RAC membership is a genuine interest in Amateur Radio, full voting membership is granted only to licensed Canadian radio Amateurs. Membership in RAC includes a subscription to THE CANADIAN AMATEUR radio magazine as one of the membership services.

Membership enquires can be directed to the address given above or call (613)634-4184. Or contact VE4YU (Ed Henderson) or VE4JR (Bill Crooks)

(editors notes: I strongly encourage all VE4's to join RAC. Without a strong membership our national organization will become in-effective and will eventually fold down. We will be without a voice. We are already being threatened with Antenna restrictions, loss of spectrum, etc.. it is RAC who will stand up for us. RAC may even end up being the licensor of our tickets soon. As the Federal Government is cash strapped, we may find out that the only way to police our hobby is from within, and for this we need RAC. Please take the time to call or write RAC and find out more about the National Organization.

Education By Rick, VE4OV

Changes to the rules in October 1990. made getting your Ham (amateur) Radio License easy "for the rest of us". now ...NO morse code for your first (basic qualification) license, which allows you special privileges to communicate with other Hams from your home, car, boat or cottage. All kinds of folks from teens to seniors are getting in on all the ham radio fun and public service. You can too! This course fully prepares you to write the Dept. Of Communications multiple-choice exam. Your instructor is your examiner and is delegated by the D.O.C. to administer your exam. There is no age or nationality restriction. Classes are for everyone. No special prior knowledge is required. The course is sponsored and approved by the Winnipeg Amateur Radio club and is designed for you... not just for electronic buffs.

10 Thursdays, Beginning January 27, 1994
7:00 pm - 10:00pm
Sturgeon Creek Collegiate
\$135.00 +gst (material fee \$45.00)(tax-deductible)

Instructor: Rick Lord, P.Eng., VE4OV

to register phone 832-9637 (mon-fri 9:00-4:00) or mail to St. James - Assiniboia Continuing Education, Sturgeon Creek Collegiate, @665 Ness Ave, Winnipeg, Mb., R3J 1A5. Payment can be by cheque Visa, or Mastercard.

2 METERS BANDPLAN- Recommended Provided by RAC

Repeaters are usually specified as their output frequency with a 600 KHZ off-set up or down (+ or -); repeaters at 147.000 MHZ and above are generally +600 and those below 147.00 are generally -600.

FM notes: In general FM channel spacing is 15KHZ with a 30KHZ being the most widely used.

144.000 - 144.050	EME (cw)
144.050 - 144.060	Propagation beacons
144.060 - 144.100	General CW & weak signals
144.100 - 144.200	EME & weak signals SSB
144.200	NATIONAL SSB CALLING
144.200 - 144.300	General SSB operation
144.300 - 144.500	OSCAR satellite sub-band
144.500 - 144.600	Linear translator inputs
144.600 - 144.900	FM REPEATER inputs
144.900 - 145.100	weak signal & FM simplex (see Packet notes)
145.100 - 145.200	Linear Translator outputs
145.200 - 145.500	FM REPEATER outputs
145.500 - 145.800	Misc. & experimental modes
145.800 - 146.00	OSCAR satellite sub-band
146.010 - 146.370	REPEATER inputs
146.400 - 146.580	Simplex
146.610 - 147.390	REPEATER outputs
147.420 - 147.570	Simplex
147.600 - 147.990	REPEATER inputs

Generally accepted simplex frequencies are as follows:

146.400 (sometimes used as a repeater input)
146.430 (sometimes used as a repeater input)
146.460 (sometimes used as a repeater input)
146.490
146.520 NATIONAL CALLING FREQUENCY
146.550
146.580
147.420
147.450
147.480
147.510
147.540
147.570

Packet notes: 145.010 should be reserved for inter-LAN use. 145.030, 145.050, 145.070, 145.090 for LAN use.