

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
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November 1993

VE4TTU

A tour of the shack at the Museum of
Man & Nature

Date: November 8th, 1993
Time: 7:30 p.m.
Place: Manitoba Museum of Man & Nature
class rooms lower level

Other Important Dates:

WARC: Nov 8 Meeting @ VE4TTU
WSC: November 12, 1993 - Breakfast at the Norlander
November 16, 1993 - Executive Meeting
December 14, 1993 - Annual General Meeting
December 16, 1993 - Christmas Party
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

CHANGE IN MEETING LOCATION NOVEMBER ONLY!

For the November 8 meeting only we will be meeting at the Museum of Man and Nature (VE4TTU). The meeting will start at 7:30 p.m. in the two classrooms located on the lower level of the museum. During the course of the meeting we will all get an opportunity to visit the VE4TTU station. We encourage everyone to come out and take this opportunity to see and experience the entire Touch the Universe Museum.

Notes from your Editor: by Derek, VE4HAY

Welcome to another month of articles and tid-bits on Amateur Radio. As you just read, we are going on a field trip this month. So please don't go the Sturgeon Creek High School, you'll be standing out in the cold. I would also suggest that you go to the museum a little early, so as to get a parking spot, you never know there could be a concert that night and the parking could be limited. When Rob, VE4GV told me what this months meeting was going to be, I said great, a perfect opportunity for all members to view the VE4TTU station. Now you won't have excuse not to show up on one of those cold and windy winter days, and work some HF, VHF, Packet, and talk to others interested in Amateur Radio. What else could you ask for. I also here that the bands are starting to come back out of the bottom of the cycle.

Articles are starting to come in, but I could always use a lot more. It doesn't take much time, and the small articles or helpful hints are usually the best, both for the reader, as well as for filler between those long techno articles, I use for page fillers. Please send the articles to me on either Internet (dwjhay@muug.mb.ca) or on packet (ve4hay@ve4kv.#wpg.mb.ca.noam) or if you have a modem on the Muddy Waters BBS in the ham conference # 9.

On a last note, I asked last month for some feed back on what you would like to see presented at the monthly meetings. Please think about it and let any executive member know your thoughts. We can only guess what is interesting , and we want to keep you entertained.

Words from the President of WARC: by Dave, VE4EF

Thank you to everyone who renewed their WARC membership at the October meeting and welcome to those who have joined for the first time!

I also want to thank Michael VE4MJM for his presentation on VHF operation in Manitoba relative to the Manitoba Repeater Society repeater network. It looks like this system will be a tremendous benefit to all Manitoba amateurs.

On Sunday, October 24 we had a very successful Flea Market. There were lots (18) of great door prizes, lots of old friends to visit with and all the coffee and donuts you could manage. Congratulations and thanks to Pat VE4PLG and Dan VE4SYG and all the other volunteers. Because the Flea Market has become so popular we are finding that the Waverley Heights Community Club is no longer large enough and we will be looking for a larger venue for the Spring.

I hope that those of you who participated in the CQ World Wide DX Contest on October 30 and 31 had fun and racked up lots of points. I look forward to hearing about everyone's scores at the November meeting.

C U on the 8th at TTU (Museum of Man and Nature)

Winnipeg Senior Citizen's Radio Club. by Bill, VE4WU President.

Well we didn't quite make the deadline for the last issue of the NEWSCASTER, sorry about that so we will add it to this installment.

Club's picnic held on September 9, 1993 turned out just great with the cooperation of the weather and a good turn out. Lots of fine eats and bingo. Mike VE4ABV and his committee are to be commended.

Breakfast at the Norlander Inn started again this past October 14th with a very well attended get-together.

Club's Executive meeting was held Tuesday October 19, 1993.

It is with deep regret to announce to the Amateur Radio Fraternity a silent key Bob Flegg VE4NGZ who passed away on October 16, 1993. Bob was a well liked and respected ham.

Get well wishes go out to Lorne VE4RLK.

Dates to circle on your calendar:

November 12, 1993 - Breakfast at the Norlander
November 16, 1993 - Executive Meeting 9:30 AM

December 14, 1993 - Annual General Meeting 9:30 AM

December 16, 1993 - Christmas Party 11:30 to 15:00

In the coming year the club anticipating holding classes for members to upgrade their skills in various modes of amateur radio. Let us know your preferences. More information next issue of Newscaster. 73's

Manitoba Repeater Society by Derek, VE4HAY

This months article will be short, due to the fact that as I write this, tomorrow is the Semi_ Annual General Meeting. So I hope you all had a good time. I'm sorry I did not make it to the meeting, but an illness in the family will keep me pretty busy for the next while. I'm also sure that Bill, VE4STW did a fine job in my place. The feature presentation was Barry VE4MA, who talk all about EME (earth - moon- earth). Thanks Barry, much appreciated.

Now a reminder, your dues to the repeaters society are coming up next month. (end of December). As was explained at the meeting, we have done a great deal so far, and the system will get better every season. As well as all those complicated codes will become easier to use, as more Palomar controllers come on line. However they only way to accomplish this great feat, is with your kind membership funds. So I urge you to please re-new your membership, and preferably as soon as possible. The future of the repeater society is in your hands. Enjoy the repeaters.

Ralph's Reg's by Ralph, VE4RY

Q. Which of these is a 'no-no' for local hams to do?

- a) Transmit over 50 watts while mobile on VHF
- b) Use a low-pass filter on the output of an HF transmitter
- c) Use a chimney-mounted ground-plane on VHF
- d) Call 'CQ' on USB at 28.600 MHz

Answers elsewhere in this newsletter

MINUTES FOR W.A.R.C.

MINUTES WARC ANNUAL GENERAL MEETING OCTOBER 18, 1993

Meeting began 0735 pm

VE4EF presiding

Each member introduced him or herself

Minutes of previous meeting approved as published in
Newscaster

moved - VE4NQ seconded - VE4TV

CARRIED

Business Arising
There was no business arising

Correspondence

-several memberships
-letter for VE4JR from RAC
-letter from Canadian Geographic magazine with
article re amateur radio
-letter handed in by VE4AG re ARES information from
Calgary Amateur Radio Association

Treasurers Report
as per photocopied report

approved-VE4KX seconded-VE4MJM
CARRIED

-VE4EF reported that WARC had a good year. The Club has
a good sum of money left in the bank. Some of the credits stated
in the report include 1994 membership renewals

-Tonight is the end of the former executive term of office
-VE4EF extended his thanks to the retiring executive,
especially VE4KX

Standing Committee Reports

-Flea Market Report

VE4PLG reported that everything is ready to go. She wishes
to meet with all the volunteers at coffee break after the business
meeting tonite.

-VE4TTU

VE4EF offered congratulations to VE4PLG for her good job
arranging the Jamboree on the Air for the Boy Scouts at
VE4TTU. The Club received a certificate from the Scouts.
VE4PLG received a rousing round of applause for her efforts.
VE4EF then advised that VE4PLG is retiring from VE4TTU and
VE4YU will be reassuming command. VE4YU will be responsible
for finding volunteers to "man" the station on weekends and
special occasions

-Section Manager Report

VE4JR read a bulletin from RAC, noting that amateur radio
licencing had increased 62% due to incentive licencing. VE4EF
encouraged all amateurs to join RAC. They need both the money
and the numbers to speak for amateurs, to the federal and
municipal governments (towers, others encroaching on our bands
etc)

-Newscaster

VE4HAY asked if everyone was happy with the contents.
The consensus was that the Newscaster was fine as is. Derek made
it very clear that he needed articles to fill our newsletter.

-Amateur Classes

VE4OV advised that he had 30 students in his classes, with
the youngest 12 years old. There were lots of YL's and a few
seniors. The recent article in the Winnipeg Free Press, featuring
VE4JBN and VE4YF were the biggest draw to the course.

-New Business

There was no new business

Notices for the Good and Welfare of the Club

VE4NME advised that today is the deadline for additions and
changes to the Bluebook.

VE4EF had WARC membership cards for VE4GO, VE4CAQ,
VE4YH, and VE4SM

VE4EF read the letter from VE4CPJ, re tower problems. He
was having difficulty getting a building permit. VE4EF detailed
the steps he had taken to alleviate the problem to date. spoke to
Earl Smith of RAC advised our group that the General Radio Act
and the Townsend Report were very helpful. VE4GV will be
speaking to VE4AE, a lawyer and a Q.C. re tower problems our
mandate is to point out to the municipality where their mandate
ends we need a volunteer to handle the problem

VE4JR advised that VE4SN was now the one and only QSL
bureau in Manitoba VE4SN stated that he would be set up at the
Flea Market, so come and get your cards.

VE4GV advised that he was very upset with the article about
ATV, and distance education, which was published in the latest
TCA magazine. He felt the article was slanted against WARC.
VE4GV read a long letter, which he will be sending to the editor
of TCA, re the article.

Meeting Adjourned 0823 VE4EN

After coffee break, Michael VE4MJM, representing the
Manitoba Repeater Society, showed what was happening now, and
what the future would be bringing for the linked repeater system.

Ralph's Answer

A. c). The local building codes prohibit
chimney-mounted antennas because of possible damage
to the gas line into the furnace should lightning strike
and also the mechanical stress to the chimney itself due
to wind load.

VE4TTU
The Winnipeg Amateur Radio Club &
The Museum of Man and Nature
(Touch the Universe Gallery)
by Ed , VE4YU

Part of the mandate of any amateur radio club is to
reach out to the general public and let them know about
our hobby. We should make them aware of the existence
and of the many facets of the hobby, tell them about the
public service aspect and most of all, let them know what
an enjoyable hobby it is. By so doing, we will introduce
amateur radio to many who may eventually pursue it
further and become licensed themselves.

To accomplish this goal, we must have a vehicle to
make this very important contact. The club sponsored

station at the Touch The Universe gallery at the museum provides such a vehicle. Over the past three and a half years, volunteers looking after the station have talked to hundreds of visitors and some of these are now licensed amateurs.

The TTU station was born when Jack, VE4DS, in The Pas, contacted Ed, VE4YU, about a Collins S-Line station he wished to donate to an active museum station in Winnipeg. On checking, Ed found that no such station existed but that the museum was interested in the concept. In the spring of 1990, a special exhibit about children and communications was set up for three months in the TTU gallery by the museum. We were invited to set up an amateur radio station in conjunction with this exhibit and if both sides were pleased with the result we may be asked to make the setup 'permanent'. The response was very gratifying and we did establish a station within TTU that has been active on weekends since summer, 1990.

A nucleus of about 25 to 30 volunteers has made the success of this project possible. We have agreed to have a licensed amateur radio operator at the station on weekends, Saturdays and Sundays from 1PM to 4PM.

The station equipment has grown over the years and besides the fully functional Collins S-Line we have a KENWOOD TS 450S HF transceiver, a KDK 2M transceiver for packet, an ICOM 28H 2M transceiver for voice, an MSDOS XT computer (donated by the museum) and a HEATHKIT memory keyer. The antennas consist of a G5RV multiband (donated by Gerry, VE4ACE) for HF, a J-POLE for 2M FM (donated by Witold, VE4WK) and a Ringo Ranger (donated by Don, VE4ACA).

Instruction manuals for the station equipment can be found in the drawers of the operating desk. The procedure for the volunteer operators is:

- 1) Sign out the keys at the TTU ticket booth.
- 2) Using the 2 keys - remove the security covers from the station storing the padlocks in the loops from where they came. (total 5).
- 3) It is best to leave the padlocks open and then return the keys at once to the ticket booth - this prevents loss or someone taking them home. We only have one set of keys!
- 4) Plug in the power bar at the outlet on the post and make sure the power bar switch is on.
- 5) Set the clock to the current time and power on the ASTRON power supply (which supplies the HF and VHF rigs).
- 6) Operate the equipment (use instruction manuals as required) and transmit on HF if a qualified operator is present (ie. holds 5 or 12 WPM codecertificate). Log all HF contacts.
- 7) Talk to visitors and ask them if they know about amateur radio. Stick to the basics for people who

are not aware of the hobby. Give a pamphlet to anyone showing a more than passing interest.

- 8) When shutting down - be sure that all power is off, the power plug is disconnected and that the security panels are installed and locked. Be sure that keys have been returned to the ticket booth.

This is a club sponsored exhibit and we ask that you dress neatly, keep the station neat and tidy and conduct yourself in a pleasing and friendly manner. You are representing the Winnipeg Amateur Radio Club and the time you volunteer is much appreciated by the club, the museum and the visitors. Thank you to all the volunteers who give of their time and efforts to keep this project active and make it so rewarding for all!

Flea Market **By Pat, VE4PLG**

Another flea market has come and gone, and it turned out to be a great success. W.A.R.C. realized a profit of 543.35 after expenses. Dan VE4SYS and myself collapsed in sheer exhaustion after it was all over, but we're ready to try again in the spring if you'll have us.

I would like to thank the following VE4's for helping out: JR,KX,GLS,GZ,MJM,EF,GLR,AAICY & UA for helping out with the door, setting up and with the handicap parking. Special thanks go to ve4's XYL,JBN & TV for all their work in the canteen. Another special thank you to VE4NQ for doing the talk-in for us. You did a great job pat. thankyou also to VE4BAR, brad for again allowing us to use his P.A. system. A very special thank you goes to VE4SYG for all the work he did helping get the flea market organized. Thanks Dan! without the help from these people we never could have succeeded.

We had some great door prizes this year; nineteen in all. Thanks to the following donators: I.C. Computers, The Austin Museum, Eastern Sales, R.A.C. Burghart's, Probe Electronics, Goodyear, Bowman Microsoft, Comtelco Eelectronics, Active Components, W.A.R.P. VE4ACX, Prairie Communications,, Old Dutch Foods and W.A.R.C.

From the comments we received from everyone, This was the best flea market ever. So thanks again everyone.

HELP WE NEED A BIGGER HALL

If you have any ideas, please get the location, contact person and price & give me the information, I will follow up on it. It has to be soon because we have to book the hall for spring. Everybody "**Please**" help.

New Call Signs

Arnold Schellenberg VE4JEA Ian Kennedy VE4MUD

Arthur Ray		VE4ARD	Hellar
Lylyk	VE4ZY		
Wayne Waldner	VE4WHW	Kelly Kitson	VE4KWK
William Anderson	VE4WXY	Mike Walpner	VE4MCW
Anatol Rosnowski	VE4RAJ	Herbert Andrew	VE4AND
Fred Heeney	VE4FLH	Louis Gaudry	VE4GAU
Domingos Meneses	VE4DFM	Clause Gilewich	VE4CBG
Richard Felstead	VE4EME	Anthony Balian	VE4APB
Ben Hofer	VE4BCH	Gary Freedman	VE4IME
Bruce Krywy	VE4KRY	Gerald Baker	VE4GTB
Shirley Thordarson	VE4SMT	Phillip Sayer	VE4PJS

THE EGGROLL FOKSTROT QUIZ

By Dave, VE4EF

It is a dark and stormy night (aren't they all) and you are sitting hunched in front of your HF rig listening intensely to a weak signal on 40 meters. It's XY2DX from Wazululand and you need him for a new one. You flip the amplifier on, key up and you hear the furnace start to run. A faint scream comes from upstairs.

Being an intrepid ham, you:

- Disconnect the furnace.
- Call out to your family that they shouldn't be watching so much TV anyway.
- Congratulate yourself that the amplifier works so well.
- Work the DX station.
- Remove the Christmas lights from the apex of your 40 meter dipole.
- All of the above.

Some Assembly Required

by Tom VE4AKI

Modern technology has changed the face of amateur radio significantly in the last few decades. Digital memories, packet interfaces, all have revolutionized the equipment used by most hams.

What of the dedicated tinkerer? The current state of the art for receiving and transmitting equipment makes the master oscillator/power amplifier rigs of the past only a nostalgic memory. What outlet does the homebrew enthusiast have to satisfy his/her urge to build?

Careful study has shown that there is a vast array of outlets for that creative urge. What transmitter can operate without an antenna? Is the tri-band yagi the only way to get a good signal out on H.F.? Can not many designs of the past be updated with new technology or materials? Improvements in broad banding would be welcomed by modern solid state rigs. Congested city environments demand compact antennas with high efficiency. Antenna design and fabrication provide plenty of scope for the homebrew enthusiast.

Is C.W. really obsolete? Many find it a pleasurable mode of relaxed communication. Keys, sideswipers, keyers and their operation for rag chewing and contesting provide a dual source of pleasure for the tinkerer/operator. For those who prefer phone operation, plenty of outlets exist. Home brew microphones, speech processors, and other audio gear are all within the capability of the average amateur.

Have you tried QRP (low power) building or operating? The modern solid state version of the M.O.P.A. rig can provide many hours of pleasurable operating and surprising D.X.

How about portable operation on vacations, camping trips or business trips? Compact QRP stations with low power drain. There is plenty of published data available for equipment of all types to satisfy your needs.

I hope by now you have realized that there is a wide variety of projects suited to your needs. So how do I begin you ask?

Researching the technical information is usually the first step. All of the ham magazines contain homebrew articles. Perhaps a recent issue features a project that interests you. An excellent source for projects are the back issues of QST, 73, CQ etc..(ed. *old magazines are swapped each W.A.R.C. meeting*). Older issues of the A.R.R.L. handbook can also provide many useful projects. Find an old timer in your club with a good collection of back issues and tell him what you are looking for. I'm sure you will be overwhelmed with the help you'll receive. Many of these older articles feature projects using simple materials and techniques suited to basic skills.

Once you have selected a suitable project where do you obtain the parts. A good collections of catalogues is useful here. Many mail order firms will send catalogues, the price being refundable with your first order. Check the classified's in the Ham magazines. Technical data books with substitution charts for transistors etc. can be helpful. Your local Radio Shack and other jobbers should not be overlooked. And last but not least, Ham flea markets can provide many needed parts plus contact with other Hams of similar interest. Don't overlook hardware stores and surplus outlets as a source of parts or equipment that can be converted.

In the beginning tackle simple projects that are within your level of skill & tools. Much can be done with simple hand tools and patience. Enclosures can be purchased or fabricated. Circuits can be fabricated using

perf. board and point to point wiring instead of p.c. boards. Automotive spray paint can be used to custom finish enclosures. Take your time and seek help from more experienced Hams if you have difficulty.

As you gain experience and confidence you will find encouragement to tackle larger more complex projects. The satisfaction you gain upon completing a project will provide a great impetus to tackle another. You may soon find yourself "hooked on building". Your technical knowledge will grow and you will achieve greater satisfaction from Ham radio.

The days of entire home brew stations may be gone, but much of the pleasure and satisfaction experienced by the pioneers of Ham radio is still waiting in the ether for you. your willingness to tackle a challenge is all that stands in the way. Those same pioneers have broken the trail for you, so warm up that soldering iron, dig into that junk box and lets get started. I hope to see you & your project at the next home brew night. (*ed. in the late spring*)

TRANSMITTER HUNTING ON WPG by Michael, VE4MJM & Wayne, VE4WTS

On the evening of Tuesday, Oct. 26, someone inadvertently locked up the VE4WPG repeater by transmitting a continuous 'zero' DTMF tone. This was first noticed around 6:50pm by myself while I was scanning. I figured that this was a small problem that would soon be noticed and turned off my radio.

Around 7:40pm I turned my radio back on and discovered that the tone hadn't stopped. I was going out in 10 minutes, so I decided to do some tracking. Before I left Wayne VE4WTS called me about something else.

I informed him of the situation and he agreed to come out to my area to hunt. I was hearing the signal full scale on the input to the repeater using my handheld. On his way over he picked up Paula VE4MHZ and the hunt was on.

The hunt was coordinated on the VE4WNR repeater and several people offered assistance when they found out what we were trying to do. Unfortunately, most were on the other side of town and could not give us much more than a general direction. It was determined that the signal was coming from the northeast area of Winnipeg. Tim VE4TEG had been notified by another amateur and was also driving around the area trying to locate the source. He was not having much success and neither were we.

Since Doug VE4DRN lived in the area, I called him using the autopatch and asked if he could use his beams to locate the source. He was able to help us a little but without a second bearing, it didn't give us much to go

on. Wes, VE4VE had just started listening and offered to get out his direction finding loop antenna and attenuator to help with the hunt.

Wes had past experience with transmitter hunting and was able to get to within a block of the offending transmitter before it swamped his attenuator. This was all we needed, as it was just a matter of finding out which tower the signal was coming from using our HTs.

We politely asked the amateur to check his radio. He discovered that the mic cord was accidentally pressing one of the buttons on his microphone. He rectified the problem and was very apologetic. The offending transmitter was found at approximately 9:50pm, three hours after the interference started.

Special thanks goes to Wes VE4VE who was instrumental in leading us to the area. Also, I'd like to thank the following (in no particular order): Gary VE4KB, Bill VE4STW, Ed VE4ON, Art VE4ART, Doug VE4DRN, Ralph VE4RY, Larry VE4CPU, Brian VE4RBL and any others that I may have missed who came on frequency with signal reports and other helpful info.

Last, but certainly not least, I would like to thank the mobile hunters: Wes VE4VE, Tim VE4TEG, Wayne VE4WTS (who was under the weather), and Paula VE4MHZ. These people along with myself took time out of their evening and made an effort to track down the problem. A special thanks goes to them.

GOINGS ON AT THE U OF M AMATEUR RADIO SOCIETY by Michael , VE4MJM

This is a short update on the U of M Amateur Radio Society (UMARS) and its recent happenings.

UMARS has been going strong for a year now after a few inactive years of political turmoil. We now only have one office room but are surviving very nicely. We have about 36 members of which 24 are licensed amateurs. We are always looking for new members, particularly from students and staff on campus. Membership from alumni and those outside the University are also welcome.

Our Executive is made up of the following people: President- Tom Tessier VE4TRT/VE5TRT Vice President- Patrick Wong VE4PHH Secretary/Treasurer- Paula Ehn VE4MHZ Technical Manager- Michael Markmann VE4MJM

UMARS is active on HF, VHF and UHF. We also have a VHF repeater which currently is accessible from all points on campus. We hope to get the repeater antennas to the top of the 120' tower that is on our building. This will get done whenever the technical guru gets off his butt to do so. But I digress!

We are looking to improve our station over the course of the school year. We hope to get a better

computer and a second VHF rig so we can run a packet station fulltime.

We hope to converse with you soon on the air.

BANDS-HF

Listing compiled February 4, 1992 by:

Scott, KD6FJC

VLF/LF/MF/HF

Low	High	Allocation
9	- 14	Radio Navigation (OMEGA)
14	- 90	Various Services
90	- 110	Radiolocation (Loran C)
110	- 160	Military CW Stations
160	- 190	Fixed Service (Power Companies,GWEN) 1750 Meters
FCC allows unlicensed transmissions under 1 watt		
190	- 415	Nautical Radionavigation Beacons
415	- 510	Maritime Coastal (CW) (International calling and distress (CW) - 500kHz) 510
- 535		Aeronautical Radionavigation Beacons (AMTOR,NAVTEX)
525	- 1605	North American AM Broadcast Band
1605	- 1800	Fixed,mobile,radiolocation
1800	- 2000	Amateur 160 Meters
1900	- 2000	Radiolocation
2000	- 2300	Fixed,mobile,maritime (International calling + distress (USB) - 2182 kHz)
2300	- 2495	Tropical Band
2495	- 2850	Fixed,mobile
2850	- 3155	Aeronautical mobile (USB,CW,RTTY)
3155	- 3400	Fixed,mobile
3200	- 3400	International Broadcast 90 M (excluding N. Amer.)
3500	- 4000	Amateur 80 Meters
3900	- 4000	International Broadcast 75 M
4000	- 4063	Maritime Mobile
4063	- 4438	MARS (?) (CW,voice,RTTY,TOR,SITOR)
4438	- 4650	Various Allocations
4650	- 4750	Aeronautical Mobile
4750	- 5060	International Broadcast 60 M
5060	- 5450	Fixed,Mobile
5450	- 5730	Aeronautical Mobile
5730	- 5950	Fixed,Mobile
5950	- 6200	International Broadcast 49 M
6200	- 6525	Maritime Mobile (CW,voice,RTTY,TOR,SITOR)
6525	- 6765	Nautical Mobile (VOLMET weather)
6765	- 6795	Industrial,Scientific, and Medical (ISM) (CW,RTTY)
6795	- 7000	Fixed Services

7000	- 7300	Amateur 40 Meters
7100	- 7300	International Broadcast 41 M
7300	- 8195	Fixed service (Out of band broadcast - 7300-7500 kHz)
8195	- 8815	Maritime Mobile (Survival craft - 8364 kHz)
8815	- 9040	Aeronautical
9040	- 9500	Fixed Service
9500	- 9900	International Broadcast 31 M
9900	- 10100	Fixed Service
10100	- 10150	Amateur 30 Meters
10150	- 11175	Fixed Service (primary) Mobile (secondary)
11175	- 11400	Aeronautical Mobile
11400	- 11650	Fixed Services (Out of band broadcast - 11500-11650 kHz)
11650	- 12050	International Broadcast 25 M
12050	- 12230	Fixed Services (Also some out of band broadcasts)
12230	- 13200	Maritime Mobile
13200	- 13360	Aeronautical Mobile
13360	- 13410	Fixed Service,Astronomy
13360	- 13600	Mobile
13600	- 13800	International Broadcast 22 M
13800	- 14000	Fixed Service
14000	- 14350	Amateur 20 Meters
14350	- 14990	Fixed Service
14990	- 15010	Standard Frequency Time Operations
15005	- 15010	Space Research (Secondary)
15010	- 15100	Off Route Aeronautical Mobile
15100	- 15600	International Broadcast 19 M
15600	- 16360	Fixed Service
16360	- 17410	Maritime Mobile
17410	- 17550	Fixed Service
17550	- 17900	International Broadcast 16 M
17900	- 18030	Aeronautical Mobile
18030	- 18068	Fixed Service
18068	- 18168	Amateur 17 Meters
18168	- 18780	Fixed Service
18780	- 18900	Maritime Mobile
18900	- 19680	Fixed Service
19680	- 19800	Maritime Mobile
19800	- 19900	Fixed Service
19900	- 20010	Standard Frequency and Time
19900	- 19950	Space Research (Secondary)
20010	- 21000	Fixed Service (Continued next month)

From: info-serv@arrl.org (ARRL HQ AUTOMATED ELECTRONIC MAIL SERVER) Reply-To: info-serv@arrl.org Subject: INFOresponse: WALL-SIGN

NOTICE

**TO ALL VISITORS WHAT YOU ARE ABOUT TO WITNESS IS
AN AMATEUR RADIO STATION LICENSED AS
BY THE DEPARTMENT OF
COMMUNICATIONS IN OTTAWA.**

BEFORE YOU ASK THE QUESTIONS, HERE ARE THE ANSWERS:

- 1) The total cost of this equipment cannot be discussed here as it creates marital conflicts.
- 2) No, we cannot send a message to your brother in Hong Kong. We suggest you call Western Union.
- 3) This is strictly a hobby; we do not have the facilities or the time to fool around with TV sets, radios or hi-fi. We suggest that you see a serviceman.
- 4) Yes, the antenna in the backyard is essential to the operation of the equipment.
- 5) The farthest station we have contacted has been in the Ubangiland.
- 6) The cards on the wall are called QSL cards. They are confirmation of contacts made with other stations.
- 7) It is technically impossible for this station's equipment to interfere with television reception, telephones or stereo systems. Any interference problems of that nature are caused by design flaws in the home-entertainment devices themselves.
- 8) An Amateur Radio station may only be operated by a highly qualified, technically skilled electronics expert. It takes dedication, training and intelligence to reach the level of competence that justifies one to be license by the Canadian Federal Government. Therefore, it is not considered inappropriate to show proper awe, respect and general obsequiousness when I discuss my hobby or operate the controls

FURTHERMORE... IF YOU ARE GRANTED THE EXTREME HONOR OF BEING INVITED TO SPEAK INTO THE MICROPHONE, PLEASE OBSERVE THE FOLLOWING RULES:

- 1) Speak in a low and soothing tone.
- 2) Do not disagree with me in any manner.
- 3) Say no bad words and tell no off-color jokes.
- 4) It is customary for guests to make complimentary remarks about this station and its licensed operator when talking to other hams on the air.

**DO NOT TOUCH ANYTHING, TURN ANY KNOBS, SIT ON EQUIPMENT,
ETC. I HAVE LOST SEVERAL VISITORS BY ELECTROCUTION IN THE PAST
FEW WEEKS.**

Thank you for your cooperation