

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
Winnipeg, MB
R2M 3L5

April 1994

HOME - BREW NIGHT

(Again, Sorry about last month)

Date: April 11, 1994
Time: 7:30 p.m.
Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

WARC: WAWA - April 9
Flea Market - April 17
Marathon - June 19
Field Day - June 25,26
MRS: General Meeting - April 15
WSC: Breakfast - April 14
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

Sorry about last month, I guess the pressure finally hit, not only did I have the wrong meeting topic, but I forgot to put the phone number in the ad from the new Kenwood dealer> please have a look for the ad again this time with the a way to get a hold of the dealer. *editors error.* (It was either the Leprechauns or April Fool's) Thanks to those who did contribute this month. But my file folder is bare for next month. deadline is 2 weeks & 2 days before the general meeting.

Words from the President of WARC: by Dave, VE4EF

Since I can once again see all the bits of wire and tie-wraps scattered over my yard I have deduced that it must be springtime! That means that the end of the 93/94 WARC season isn't too far away and one of the things we have to do is nominate a new executive. Elections will not be held until the June meeting but I would like you all to give some thought to how you can best help our club in the year to come. Having served on the WARC executive for the past two years I can attest to the fact that this can be a rich and rewarding experience. Speaking of which, I noticed in the fine print of the WARC by-laws that the membership is supposed to buy the outgoing president a gift. Imagine my amazement! Ah well, but rules is rules.

We once again had a good turn-out at the meeting to order new jackets. I was pleased to see such a great response but Kay VE4YF says that next year we should order monogrammed pens instead. Thanks to Rob VE4GV for presenting the CQ video "An Introduction to Contesting".

At the April meeting we will be having our annual Home Brew Competition and a short presentation on the local ARES (Amateur Radio Emergency Services) and CFARS (Canadian Forces Amateur Radio Service). Come on down! I'll see you there.

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

Your president did not entirely forget about radio while he was in Arizona. He attended The Canadian Amateurs Lunch in Mesa, now an annual Snowbird occasion, where he met Pat NQ, and Bob TX and many others among the thirty plus who attended. The Golf was pretty good too although the XYL was the winner three times!

The past month has been a busy and rewarding one for the fifteen computer students and their instructor as they completed the course. Our sincere thanks again to Harsha, VE4SAI, and to Muddy Waters Computer Society.

That's the good news!!!- and the further good news is that another course will commence on the first Monday in April should there be continuing interest! Get your name down on the list pronto. In response to an invitation from Age and Opportunity, Manitoba, the Club put on a demonstration and display at the Leisure Fair run by that Agency on March 16th in the Church across the way. There was a large attendance, and gratifying interest in the Club's contribution.

This month, our premises, equipment, and help are once again being made available to WARC for the Worked All Winnipeg Award event on the 9th. We wish them good DX and best wishes for a successful project. Next Board Meeting will be on Tuesday, 12th April, and don't forget the Breakfast at the Norlander, Thursday, 14th, 9.00 am. See you at the Flea Market on the 17th. 73's.

Manitoba Repeater Society
by Derek, VE4HAY

Notice of Semi-Annual General Meeting of the Manitoba Repeater Society on April 15, 1994.

Elections will be held for executive positions. Most of the current executive is running again with the exception of myself. So basically they are looking for one additional body. So if you like the way the clubs had been running and would like to help out please submit your name for a position. Also if you don't like the way the club has been running, now's your chance to make a change, or don't bother complaining till next year.

The other item to be brought up is a proposed increase in fees. Due to our rising costs we would like to increase our fees from \$35.00 initial fee & \$20.00 renewal with \$10.00 for additional family member, to \$35.00 initial fee, & \$25.00 renewal, with \$10.00 additional family member. The reason for this increase is simple. Our

costs have gone up in the past 2 years. Telephone for the autopatch has increased, Insurance costs have increased, Licence fee's have increased for the last two years. and the cost of upgrading the system is an concern. Discussion on this will most likely take place, but please remember the last increase was actually a decrease in fees some 3 years ago.

Now on to good news. As I write this it's the first day of Spring and it's 7 above. I have just finished a trip to the new site of VE4PLP, where VE4TEG and myself surveyed the tower and building there. We made the decision of what equipment will be needed and at what height the antenna's will go. The Technical committee will meet in 2 days and discuss the equipment status and what needs to be done to have this intermediate link on the air. We are very hopeful that it will be operational by the annual meeting date. This will finally link VE4MAN to VE4NEP. Once complete our next project will be the east link, VE4MIL. We have been negotiating with a Govt department for access to a tower 3 times the height we are on now, with the hope that we can at least double the height of our antenna at VE4MIL. If this ever comes through we will proceed very quickly establishing the link to VE4FAL & VE4GIM and back to VE4MAN. We could have done this by now, but we did not want to drill 3 set of holes in the wall of the building we are currently in, and then move our equipment out in the Spring. (not a good idea if we want to be a respected club with the various govt departments). As for the linking of VE4WPG & VE4VJ we will discuss this at the general meeting. (we should have a better idea at this time.

For other good news. We have been discouraging the use of VE4VJ as a repeater (due to the links on this station), but we are now ready to let this be used as a repeater. So if any member preferably (or any other ham) want to use their UHF radios please feel free to access this repeater. However please remember that there is still other stations that will want to use this station as a linking hub. Please use long pauses between exchange of QSO. The hub can not activate if a QSO is happening.

In closing it has been a great 2 years on the executive, and I have learned a lot on the running of MRS and the repeater situation on our province. It is hoped that I have made an improvement on the running of the club, and that they will continue to follow in this direction and establish the best ground linking system in Canada.

73 to all
de Derek, VE4HAY

QRP Power Meter by Tom, VE4AKI

One of the duplicities in operating QRP is accurately measuring your power output. Most modern transceivers with built in power meters are not accurate enough at power levels of 5W. or less. This problem also exists with the external power meters. Many no not have a low power scale that allows accurate setting in the ranges we need. The following project is an inexpensive easy to build, and easy to calibrate instrument to solve this problem.

The most expensive component is the meter. A microammeter in the range of 50 ua to 1 ma. is required. This could be purchased new, but a less expensive source is a Ham flea market, (*ed.note: like the one on April 17th*) or another Ham's junkbox. Many meters of various styles are available at low prices. Any size or style will do, but preferably one with a removable face. The other major part is the enclosure. Any metal enclosure (new or reused) than can accommodate the meter is suitable. Lets take a look at the schematic and see what's involved.

The R.F. power is absorbed by the load resistance R1. For the 5 watt level this can be 3-150 ohm 2 watt resistors in parallel. This will handle 6 watts continuous and probably double that on an intermittent basis. R.F. voltage is rectified by D1, a 1N34 diode. The DC that results is fed to the meter through R2 which is used to calibrate the meter. The value of this resistor will depend on the range of the meter you are using. I suggest a small trim pot be used to set the full scale reading on the meter.

On the meter I built, which used a 1 ma meter, I found a 50k ohm trim pot allowed me to set the full scale reading of the meter to 5 watts. The .01 uf disc ceramic capacitor and the R.F. choke are used to filter any R.F. our before it reaches the meter. The choke I used was made by winding about 10 turns of # 28 wire on a small ferrite core. Any R.F. choke in the range of 10-20 uh should do. The dashed line in the diagram is a shield that isolates the load resistor from the meter.

The included diagram shows a suggested layout. The size of the enclosure will be determined by the size of the meter. Point to point wiring can be used for R1, D1 & C1. An R.F. connector of your choice can be mounted on the rear panel. A small hole in the shield allows an insulated wire to bring DC to the meter circuit. The R.F. choke and the trim pot can be installed on a small piece of perf-board and mounted to the bottom of the enclosure. Make sure all ground connections are secure.

The last step is to calibrate the meter. This requires a variable DC voltage source (a power supply) and an accurate voltmeter (with digital readout if possible). Disconnect the diode at the R1 end and feed in the DC voltage to the meter. The following chart shows the DC voltage / watts relationship.

With a DC voltage of 22.78V adjust R2 to get a full scale reading on the meter. This is the 5 W level. Set the voltage to 20.38v and mark the meter scale (or note the meter reading) this is the 4W level. Continue calibrating each step down to .1W (100mw).

That's all the adjustment necessary. Don't forget to re-solder the diode. A new meter scale can be made up and put over the existing one or the existing scale can be re-labeled. If the face of your meter can not be removed you may make up a chart to know what the wattage values are. You will find that the higher power values are spaced closer together while the lower values are spaced out. This allows more accurate reading of the lower values. Accuracy with a good meter should be in the area of 5% -10%.

Well that's it. Get busy sourcing the parts. Don't forget the shield between the load resistor and the meter. Beg, borrow or steal (just kidding) an adjustable voltage source and find a free Saturday afternoon and you will be on the air by Saturday night. See you on the bands.

NOTICE OF ANNUAL GENERAL MEETING FOR MANITOBA REPEATER SOCIETY

This is your final notice for the Manitoba Repeater Society's Annual General Meeting, scheduled for April 15, at 7:30pm. The meeting will be held at Sturgeon Creek High School, 2665 Ness Ave. in the auditorium, on the east side of the school.

We have three candidates for office to replace the one officer who is stepping down. These people are: Tim Rafferty VE4THR, a Manitoba Hydro employee, who would be very useful on the executive. He has access to all the Manitoba Hydro sites we need for repeaters. He can scrounge cabinets to house our repeaters. (the mark of a good ham is a good scrounger!!) The other two candidates are Dan Michaels VE4SYG and Pat Geisbrecht VE4PLG. Dan and Pat have done an outstanding job of organizing the Winnipeg Amateur Radio Club Flea Markets the past few years. This job occupies a lot of their time. All three candidates would be good additions to the executive. If you are interested in running for office, please phone Dick VE4HK ASAP. If you know of anyone who would be a good candidate, please phone

VE4HK as well. He will try to twist their arm. Time is running out. We intend to cut off nominations on April 8.

Another very important reason to attend the AGM is that the executive plans to raise membership dues by a small amount, to \$25.00. We intend to leave the first time user fee and the family membership the same as 1993. This is a very small increase in dues, the first in several years. The executive feels that we need the extra funds which will be generated, in order to pay for our upgrading program.

All members of the Repeater Society are cordially invited to attend the AGM. The meeting will offer all members the chance to get a full briefing on the upgrading program, financial statement, and other club business. Everyone will have their opportunity to ask questions of the executive, and to express their opinions on the direction of the Manitoba Repeater Society.

watts	volts
5	22.78
4	20.38
3	17.65
2	14.40
1	10.19
.9	9.67
.8	9.11
.7	8.52
.6	7.89
.5	7.20
.2	4.56
.1	3.22

Amateur Radio & Red Cross in Winnipeg
by Tom, VE4SE

In the event of a disaster or emergency, either local or anywhere in the country or the world, the Red Cross in Winnipeg is likely to be involved. When that happens communications becomes a vital link. It is not usually until after the normal means of communications breaks down or are overloaded that the 'HAMS' are called upon. VE4WSC is the more or less official "voice" for the Winnipeg Red Cross.

For example during the Mexican earthquake and the Edmonton tornado much traffic was passed by the WSC on behalf of the Red Cross. The messages were mostly of people inquiring of friends & relatives, but anything of importance was given priority. During the Dryden OT air crash the Red Cross contacted me as they needed to be in contact with the Dryden Red Cross on important information. As all lines were busy in the Red Cross at Dryden I got onto the Hadashville repeater, VE4AS in Falcon Lake passed traffic to Kenora OT, who relayed it to Dryden and in less than 10 minutes telephone contact was established between Winnipeg & Dryden Red Cross.

During the forest fires in Manitoba and in Red Lake area, Winnipeg was a reception centre for evacuees.

Amateur radio on 2 meter was used between the reception centres and the Red Cross on Osborne Street. There is a 2 meter antenna on the roof of the building and communications is very good through out the city. With good repeaters now online most can be activated from within the Red Cross building using handhelds & "rubber ducks". However VE4BBB, ben, & I will be relocating the antenna making it more accessible to the centre of operations and then any handheld using the external antenna will have excellent coverage.

As communications officer for the Red Cross I know they will rely heavily on Amateur Radio when the time comes. I have a list of volunteers who can be called on when needed, but I can always use more. If you have any questions about helping out please contact me. I also know from past experience there is a large group of people out there who do not want to be on a list or "obligated", but when they are needed always volunteer and do good work. We can always use you, so don't ever hesitate to come to assistance.

Radio Amateurs of Canada Bandplan
band: 144 - 148 mhz

(ed. re-published now that I have an official plan from RAC. If anyone has the official 70cm bandplan, please forward to me via packet. thx)

The following is the official, and "only" sanctioned bandplan for Canada. Accept no imitations. No other bandplans should be accredited or used unless vetted through Radio Amateurs of Canada.

by VE3DSS, Dana Shtun
1st VP RAC/frequency coordinator.

Frequency (mhz)	Utilization
144 - 144.1	moonbounce and terrestrial cw
144.1	calling frequency
144.1 - 144.2	cw/ssb weak signal
144.2	ssb calling frequency
144.2 - 144.275	am narrow band modes (acssb, ssb bw 2.5 khz)
144.275 - 144.3	propagation beacons
144.3 - 144.5	exclusive oscar sub band
144.5 - 144.6	repeater inputs primary,linear translator inputs secondary
144.6 - 144.9	repeater inputs
144.9 - 145.1	packet (see footnote 1)
145.1 - 145.2	repeater outputs primary,linear translator outputs secondary
145.2 - 145.5	repeater outputs
145.5 - 145.8	experimental modes (see footnote 2)
145.8 - 146.0	exclusive oscar sub band
146.01 - 146.37	fm repeater inputs
146.4 - 146.58	fm simplex (see footnote 3)

146.52	national fm calling frequency
146.61 - 147.39	fm repeater outputs
147.42 - 147.57	fm simplex (local option)
147.6 - 147.99	fm repeater inputs

Footnotes:

- (1) Digital (Packet) operations on 20 KHz channelling 144.91 through 145.09 MHz. 10 channels. See note 2.
- (2) Operation in this sub-band is on a TEMPORARY basis for experimentation and development work. RAC requests that the frequencies such as 145.5, 145.525, 145.55 and 145.750 MHz be kept clear for INTERNATIONAL Space Shuttle and MIR FM voice communications. RAC urges Amateurs to conduct experiments on other bands such as 50 MHz, 220 MHz, where utilization is high on 2 metres.
- (3) The frequencies 146.40, 146.43, 146.46 MHz continue to be used as repeater inputs in some areas.

PLEASE PUBLISH THIS BANDPLAN IN YOUR CLUB BULLETIN. PLEASE ENSURE THAT ALL AMATEURS ABIDE BY IT. TO DO OTHERWISE IS TO ACCEPT CHAOS.

The Seniors Net **By Arch, VE4AAI**

During the past four months, a 'Seniors' 2 meter radio net has been organized and operates at (:00 am, Monday through Friday, on the VE4WPG Repeater. It had a modest beginning; but has grown significantly to where a total of over 50 seniors and friends have registered; with the average daily check-ins at about 20. Jim Ross VE4AJR is the co-ordinator control, and various of the participants are asked to act as controls from time to time. It is felt that a number of new "Hams" are thus encouraged to get on the air, gaining confidence and experience in the protocol of operating amateur radio and nets. Although it is a "Seniors Net" , we invite visitors, mobile operators and other interested Hams to check in with greetings.

Hints & Kinks **by Ralph, VE4RY**

When assembling PL-259 plugs and using those adapters to fit RG-58 or RG-59 cable, you can prevent the adapters from loosening by wrapping a short piece of solder around the adapter before tightening it all the way.

MINUTES FOR W.A.R.C. MARCH 14, 1994

Meeting began 7:30 pm at Sturgeon Creek High School, VE4EF presiding
 - VE4EF made a few remarks welcoming all to the meeting each person present introduced him or herself. approximately

100 in attendance The minutes of the February meeting were approved as published in the Newscaster
 moved VE4AJR seconded VE4SYG
 CARRIED

- There was no business arising
- Correspondence

VE4HK received a letter from Bruno Ammater asking information on becoming a ham. He mailed a letter recommending VE4OV's course, and VE4YU for manuals etc.

- There was no Treasurer's Report due to the absence of a treasurer

- Standing Committee Reports

VE4PLG reported on the Flea Market coming up on April 17. She emphasized that if anyone wanted a table they were best to book one quickly, since she was almost sold out.

VE4OV reported on his amateur radio classes. Everyone who took the course in the fall graduated, and now have their amateur licence. Congratulations!! The spring course will begin Thursday April 21, at Sturgeon Creek High School. The fee will be the same as the winter course, approximately \$180.00. There are 20 students in the winter course. VE4OV has 73 code tapes. They start at zero knowledge and work up. He also has hand keys, built by VE4PT, to sell for \$20.00

VE4HAY reported on the Newscaster. He made two boo boos in March. One was that Homebrew Night is in April, not March. The other is he missed the address and phone number for the Aerial Communications advertisement. VE4HAY also made his monthly impassioned plea for articles for the Newscaster.

VE4EF mentioned that the Manitoba Marathon is coming up, on Fathers Day. He will require about 60 amateurs. He requested assistance.

- New Business

VE4YU advised that Radio Amateurs of Canada need volunteers for a VHF/UHF Advisory Council and a Digital Communications Committee. VE4HK also talked about RAC. He has a questionnaire re RAC, which he asked anyone interested to fill out and return to him, or mail in to RAC.

VE4SE asked if anyone had received their amateur licence yet. Answer: Licences have not been mailed out yet. Coming soon.

VE4JR requested any articles of interest for the Manitoba Section news in TCA magazine.

VE4GV spoke about Field Day, stated that WARC needs to participate in a Simulated Emergency Test (SET). He recommended that everyone in the audience watch the upcoming film.

VE4GV announced that morse code classes would be coming soon on an MRS repeater, just before 2 meter net. He also mentioned that registration forms for the RAC convention were in the latest TCA magazine, and thanked TCA for their support by publishing his letter re St. James Assiniboia School Division using ATV to telecast school lessons.

VE4OV stated that re towers, masts etc., everyone should watch very closely for Hydro lines and other dangers. Safety first! Look up and live!

VE4YU will be available to distribute RAC questionnaires later during meeting.

VE4AG announced that the CLARA (Canadian Ladies Amateur Radio Association) Contest will take place Tuesday March 15, from 1700Z until Wednesday March 16 at 1700Z. He has log sheets etc. He requested a YL from Manitoba for Tuesday on the HF bands. Everyone pointed at VE4YF, who demurred.

VE4EF spoke about VE4WR and St. James Assiniboia School Division use of amateur radio frequencies to telecast school

lessons. He spoke to Dan Kerr of DISC. They had a long amicable meeting. Mr. Kerr assured VE4EF that the ATV situation will not be repeated. VE4EF made a second point, that DISC expects part of their agenda will be to hand over most authority re amateur radio licencing to RAC. This will probably be forced upon us within a year. We must be involved with RAC. Read TCA. Keep in touch. Join RAC. VE4OV noted that the above information was announced in a recent edition of TCA. VE4EF reiterated that this will happen SOON!! A series of questions and discussions followed.

VE4EF announced that the upcoming program, after coffee break will be Introduction to Contesting

VE4HK presented a light hearted speech asking for help with the Worked All Winnipeg Award QSO Party on April 9.

- Notices for the Good And Welfare of the Club

VE4RY spoke about the new, improved VE4CNR antennas. He also invited everyone to join in on the Friendly Good Morning Ralph and Dick Show, weekday mornings on VE4CNR.

VE4MJM spoke about the University of Manitoba Amateur Radio Club. He stated that the Club was on the upswing, and that their room was guaranteed (for now).

VE4EF and VE4HK combined to encourage everyone present to purchase a raffle ticket for the J pole (built and donated by VE4ABA) and a beautiful green, (in honor of St. Patricks Day) candy tray.

VE4CPU spoke about the new Arborg repeater.

Adjournment 0830 VE4EN

Coffee Break til 0850

The winner of the J pole antenna was VE4AYG. The winner of the candies was VE4AJR. We made a profit of \$83.00 on the raffle.

WORKED ALL WINNIPEG AWARD QSO PARTY SATURDAY APRIL 9 **by Dick VE4HK**

The Worked All Winnipeg Award QSO Party is only a few days away. Yes, it will be April 9, from 9 am to 5 pm. Listen for VE4WSC, our net control station, on 14.250 MHz plus or minus QRM.

We will be using 147.39 VE4WPG repeater as our 2 meter spotting and control frequency. If you can't beat the pile up on 20 meters, please call in on 2 meters, so that we can know that you are available. We can also use 2 meters to slot you in.

If band conditions are better than 1993, we should be very busy. We will be in a portion of 20 meters which allows many more of our American friends to work us. I anticipate being quite popular.

The Worked All Winnipeg Award QSO Party is a golden opportunity to put Winnipeg on the HF map. Hams on the bands are always claiming that they "never hear any VE4's". We are going to change that in just one day!

If you can spare any amount of time on April 9, I invite you to participate, whether for a few minutes, a few hours, or all day.

I honestly feel that the Worked All Winnipeg Award Certificate is one of the most beautiful available. Anyone who has earned this award will be proud to hang it on their wall.

Remember, too, that all hams are eligible to earn the WAWA certificate every day of the year, not just during the QSO Party.

The rules for the Worked All Winnipeg Award are as follows

Stations within Manitoba, including the City of Winnipeg, must work at least 25 different Winnipeg stations

Stations outside Manitoba, but on the North American continent, must work at least 15 different Winnipeg stations.

Stations outside North America must work at least 10 different Winnipeg stations.

Any band or mode may be used, but all contacts must be direct, not through a repeater. QSL cards are not required, but a certified copy of your log must be mailed in, along with the signatures of 2 other hams who have checked your log. The cost of the award is \$2.00 or 6 IRC's. Mail application to: WORKED ALL WINNIPEG AWARD, c/o Dick Maguire VE4HK, 598 St. Marys Rd., Winnipeg, MB, Canada, R2M 3L5

If you have any questions, please phone Dick Maguire VE4HK, or call me on VE4CNR repeater 146.76

HowTo.NTS (Part -2)
by W6CUS Am. Red Cross, Richmond,
CA #:2210 Z:94804

NTS MESSAGE FORMAT

NTS radiogram format is like an envelope within an envelope. The outer envelope is the packet bbs message itself being forwarded via WORLI forwarding protocols and headers. The NTS envelope is the age old NTS radiogram format which can interface with local and section nets and allows delivering stations all the necessary information to trace, service and deliver the message. The following is the standard ARRL radiogram format. Radiogram format should follow the standard ARRL radiogram message format in order to maintain the necessary information to interface with SECTION nets, tracing originators, and essential record keeping. Delivery nets all across the Continental USA will not accept traffic for delivery unless it is in standard NTS form. Standard ARRL message form requires a number, station of origin, word count (check), place of origin, date and time. Give as a full address as possible. Separate the text with a BT. End the message with the signature and the prosign AR. Sending "ctrl Z" will send the message to the mailbox. When connected to the WestNet linked BBS, the following commands should be used and the message format adhered to:

ST 60625 @ NTSIL<cr>

(Use ST 5 digitzip @ NTSXX, where xx is the state or province abbreviation).

Enter title for message>
QTC 1 Chicago Il 312 453 <cr>
(give quantity,qth, first 6 digits of telephone number.)

Enter text and close with a Ctl-Z (^Z):
Nr 1 W6ABC 20 San Francisco Ca 1230Z Nov 25
(Standard nts format)
Mr George Smyth (Addressee)
2315 North Oak St (Give FULL address)
Chicago Il 60625 (Include Zip as shown)
312 453 1793 BT (Give Phone number)
(use BT to separate text)

Hi Dad arrived safely at (five words per line)
San Francisco X stop over (makes it easy to only)
two hours then Guam (check the word count)
X will write soon love BT (give BT at end of text)
John AR (Use AR at end of message)

Include all helpful information in the address. If there is an apartment number or a space number (mobile parks), zip code, area code, etc be sure to include it when entering the message. Always check for typos.

OPERATING PROCEDURES

Remember to use the "T" in the "ST" command or your message will not be able to be killed with the "KT" command at the end point. When you check into a mailbox type "LT" to get a list of NTS traffic. If you can deliver any, type "R Number" and after making sure you have 100 % copy, delete the message. To kill (delete) NTS traffic use the "KT" command followed by the message number. *Do so only after you are sure you have confirmed copy*. This erases the message so it won't be delivered twice. On some systems it also services a message back to the originator that the message has been picked up and by whom and when.

Summary:

LT Lists all NTS traffic on the BBS
R ##### Reads the message number #####
KT ##### Kills the message number ##### (Use only after you are sure of 100% copy)
ST ZZZZZ @ NTSXX Sends an NTS message to zipcode zzzz @ the state or province of xx.

SERVICE MESSAGES

If the message that you have QSI'd and deleted cannot be delivered because of an incorrect telephone number, incorrect address, no listing, etc., then we request that all users generate a service message back to the originating station as to the reason why the message was undeliverable. The message should be sent in standard NTS form and should be sent therefore to the

5 digit zip @ ntsxx of the originating station; who by the way, may not be the station who first put it on packet. You may not have a callbook or a zip code for the originating station but the ARRL radiogram format guarantees that you have a callsign, message number, and place of origin. Thus the message is addressed to the station of origin telling him or her what message number was undeliverable and why. For example, if the callbook says that w6abc in the above example was located in San Francisco with a zip code of 94102, the message may be sent something like this from Illinois:

ST 94102 @ NTSCA <CR>
QTC 1 W6ABC SF CA nr 5 k9ozm arl 21
Chicago il dec 5 alan allen w6abc 2345 mercenary
dr san francisco 94102 bt
arl sixty seven 1 phone
incorrect and no listings for
george or g smyth or
smith x address incorrect also
73 bt
Don K9OZM at w9cd bbs
<CTRL Z>

This would give w6abc all the information necessary to be able to see what message did not get delivered and determine why. Maybe his phone book was inaccurate or maybe he made a typo when entering the data or...? You might have noticed the word arl in the header. That is a NTS symbol to indicate that there is an ARRL arl message in the text. The text arl sixty seven is only one of many ARRL canned messages that is sent as an abbreviation over the air. The delivery station then translates the arl number back into English when delivering the message. In this case ARL Sixty Seven translates as: Your message number-----undeliverable because of -----. Please advise. For a list of the ARRL Numbered Radiograms check your packet BBS or write your Section traffic Manager or the ARRL for CD-3 "The ARRL Numbered RADIOGRAMS".

(continued next month)

Manitoba Kenwood Dealer
by Garry , VE4SO

AERIAL COMMUNICATIONS of Morris MB, would like to thank all hams who helped in making March a successful month, as well as a learning month for us here .

Due to alot of requests for other Amateur Radio products and accessories besides the KENWOOD Amateur Radio line, we are currently in the process of adding more product lines. We are also sorry to have to up all our prices on the KENWOOD equipment due to the strong YEN/ not so strong Canadian dollar. We'll just include the prices for the most common requested equipment, so as not to take up too much room here:

TS 850SAT--\$2320.	TS 450SAT \$1711.
TS 140S--\$1140.	TS 50S--\$1345.
TM 241A--\$459.	TM 251A--\$495.
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