

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

May 1994

tentatively scheduled

legal counsel for Radio Amateurs of Canada.

Tim Ellam

Date: May 9th
Time: 7:30 p.m.
Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

WARC: Marathon - June 19
Field Day - June 25,26
WSC: Breakfast - May 13th
MRS:
Other: May 25 ARES Meeting
July30 - Aug 1 - Camp 807 Kenora OT
Aug27 Lake of the Woods Ham Fest Roseau MN

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**

Well due to the fact that I have article this month I will keep this short. Thanks to those who have sent in stuff. please keep it coming.

Words from the President of WARC: **by Dave, VE4EF**

Those of you who weren't at Home Brew night in April sure missed out on some interesting and creative projects. Thanks and congratulations to everyone who took the time to bring out a project and to our esteemed panel of blue ribbon judges for their efforts. After the judging was over, Rod VE4TM gave a brief presentation to us on ARES and Gary VE4AIR spoke to us about CFARS. Thank you both for informing us about these two interesting aspects of amateur radio.

Spring must have sprung because the Flea Market has come and gone. This year's spring flea market was held at a new location (West Kildonan Arena) and it was a tremendous success. It was great to have an opportunity to come out and visit with old friends and to make some new friends. Many thanks to Pat VE4PLG and Dan VE4SYG and their many helpers for a job well done. We are all looking forward to the fall flea market, although it may have to be held a little bit earlier than usual or else we may have to all take our ice skates.

On April 15 I had the opportunity to congratulate the latest crop of Rick's (VE4OV) graduates. If you hear someone with an unfamiliar call sign on the air please introduce yourself and welcome them to the hobby.

For the May WARC meeting we have tentatively scheduled a short presentation by Tim Ellam VE6SH, legal counsel for Radio Amateurs of Canada. In addition, we intend to have a short open forum discussion of topics currently of interest to the club members. See you all there.

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

F-OH-OH-OH-RE !!!! Once again the stentorian cry announces the Season of the "WEE WHITE BA' CHASERS". On the principle that if you can't beat it, join it..., we are proposing to have a "Golf Day" in June. This will likely be mid-month, and on a Wednesday. Look for the "Interested" list on the Notice Board and add your name.

While you are at it, look at the other Boards, where you will see among other world shattering news events that " Breakfast at the Norlander " will be on FRIDAY, MAY 13th (NOT THURSDAY!!). This change was required to accommodate to other bookings and we had no choice other than to move or cancel. We are considering however, that a change might be a good idea, and so to test the water, we will stay with FRIDAYS throughout the Summer months unless we hear from you. Let us know if you dont agree.

We are pleased to announce that our membership is now up to 137 with the arrival of Eberhard Schumann (VE4ZI), Stuart Ritterman (VE4SIR), and Larry Heeny (VE4SLH). Hello, and welcome!! We also congratulate the following members who have recently achieved "Basic+12". Bert Anderson, VE4AP, Ray Hawkins VE4RAY, John Mitchell VE4CCW, Ben Moroz VE4BBM, and Stan McGregor VE4SCM. Member donations remain a concern. These are the life blood of our club and although many have come in to date, even more are still awaited. If you have overlooked your donation, please send it now, or, even better drop in and make it a Donor Visit. The coffee is aye ready.

Manitoba Repeater Society
by Derek, VE4HAY

Please see the last page of the newscaster for a list of Codes required to operate the new Palomar Repeater Controllers. These codes may seem complicated, but I am sure that after you use them you will find that they are very simple to use.

By the time you read this VE4PLP should be on the air. (to be installed on April 29 morning) This is an intermediate link between VE4 MAN & VE4NEP. We have already been approached by the Brandon Amateur Club in regards to getting their UHF link into VE4NEP, so we can expect this to happen this summer as well. As for the East link, well , we are still waiting for permission to move to a higher tower at Milner Ridge. Our current site does not provide us with enough path to make a reliable link back to Winnipeg and to VE4FAL. The people from

LOWARC tell us they are ready for us to tie into their system. All we have to do is tell them when ands they will turn on their Xmitter and we are all set.

The General meeting of the Manitoba Repeater Society went very well. With any meeting there was some avid discussion and comments made but all in all it was a very productive meeting. Your new executive has not had a chance to meet as of this writing, so I can not report who is charge of what position, but I am sure they will be meeting within the next month, and will then have a report ready for the members.

MINUTES FOR W.A.R.C., APRIL 11, 1994

Meeting held at Sturgeon Creek High School

Meeting began 7:35 pm VE4EF presiding

Each member and guest introduced him or herself.

Approximately 100 people present

Minutes of March meeting approved as printed in Newscaster, moved VE4AJO, seconded VE4GD

CARRIED

There was no correspondence

Treasurer's Report

VE4YH reported that WARC has approximately \$3000.00 in the bank. Since we owe some to Shanters for club jackets, our true balance is about \$1800.00

Committee Reports

VE4PLG reported on the Flea Market coming up April 17. WARC has sold close to 50 tables. only 1-1/2 left. All buyers are welcome. VE4PLG strongly urged that all sellers do not sell ANYTHING until 9 am. She pointed out that it is terribly unfair to sell before the doors open to buyers. She mentioned how disappointed a ham who drove all the way in from Kenora to buy one particular item felt, when it was sold before he was allowed to enter the Flea Market.

VE4OV reported on the RAC convention July 29-31, in Calgary. He will be speaking for about 45 minutes about SWR.

VE4OV announced that the next amateur radio classes will beginning on April 21, just over a week away. The total cost will be about \$180.00

VE4HK reported on the WAWA QSO Party on Saturday April 9. He also thanked everyone who participated.

VE4HK also announced that VE4OA Brian Wilson passed away on Saturday April 9.

VE4EF requested help for the Manitoba Marathon, June 19, Fathers Day. He noted that the pre race briefing will probably be the Tuesday before the Marathon.

VE4HAY reported that he had been told that April is national Ham Radio month. Ron Able, an announcer on CKY, announced that on his show. Mr. Able got this information from a national service. VE4HAY asked if anyone knew about that. Consensus of opinion: something to do with ARRL in the United States.

VE4JR, our Section Manager, stated that he knew nothing about Ham Radio month.

VE4YU announced that April 23 is International Marconi Day. The 23rd of April is 120th anniversary on Marconi's birth.

VE4YU announced that WARC would be involved in a display at the St. Vital Shopping Center, Friday April 22, from 7 am to 9 pm, and Saturday April 23 from 9:30 am until 6 pm. VE4YU requested volunteers to serve 3 hour shifts.

VE4YU spoke about the RAC survey

Notices for the Good and Welfare of the Club

VE4EF encouraged everyone to read the article in April 1994 TCA concerning model for change.

VE4EF and VE4HAY are attempting to set up a joint WARC/MRS mentoring/elmer program. This will "mate" old, experienced hams with newly licenced hams, so that the newcomers can "learn the ropes".

The Club will discuss this later.

VE4YU spoke about VE4TTU. refer to letter dated April 11, 1994. He resigned as VE4TTU co-ordinator effective May 2, 1994. He recommended that WARC close down our display at VE4TTU, unless a suitable co-ordinator steps forward.

VE4EF spoke to the letter. He stated that the WARC executive feels that the VE4TTU project has come to the end of the line. It is better to do three or four high profile events each year.

VE4EF threw the floor open for questions, but made it very clear that if VE4TTU was to stay open, a very dedicated volunteer co-ordinator must step forward.

VE4JR moved a vote of thanks to VE4YU for his years of dedicated service to VE4TTU
unanimous approval

VE4EF stated that all surplus equipment from VE4TTU will probably be stored at VE4WSC. It will be good for displays and Field Day.

VE4OV asked if this decision is from the executive? He also asked if the station will continue if a suitable volunteer comes forward.

VE4EF replied "both". The executive wants VE4TTU to continue. The Club must be realistic. We are simply bowing to the inevitable

VE4EF announced that the presentations following judging for home brew will be VE4TM speaking on ARES, and VE4AIR speaking on CFARS

VE4FO spoke about Field Day. He posed the questions: What about Field Day. We need equipment. We need a large tent. We need at least two generators. We must think of purchasing these things.

VE4EF advised that Field Day is the weekend after the Marathon. Please see VE4EF if you are interested in participating.

VE4AJR stated that he was sorry that VE4TTU was ceasing. He also asked about the CW lessons on VE4WPG, just before the 2 meter nets.

VE4EF asked for any comments on the CW lessons. There were no comments.

VE4HK thanked the WSCARC for allowing WARC to use the Seniors station for the Worked All Winnipeg Award QSO Party on April 9.

adjourn 8:10 pm

VE4EN

Coffee Break, raffle draw and homebrew judging
raffle won by VE4BDB

The meeting recommenced about 8:50 with presentations by VE4TM on ARES and VE4AIR on CFARS.

After these presentations, the winners of homebrew night were announced. first place VE4AKM selected a 1994 hardcover ARRL Handbook second place VE4WTS selected a magnet mount antenna third place VE4SET selected a soldering iron and a roll of solder The ARRL Handbook was donated by Wes Cowan of Vancouver. The magnet mount antenna was donated by Comtelco Electronics, 1456 Logan. The soldering iron was donated by Cooper Tool. The roll of solder was donated by Smith Patterson Associates. Thanks to each of the companies who donated to our event. Congratulations to each of the winners, and to everyone else who participated in homebrew night.

final adjournment 950pm

Hints and Kinks **by Ralph, VE4RY**

When cutting bolts or threaded rods you can eliminate the need for a lot of filing by fitting a nut over the threads, past the cut. Then, when the nut is removed it nicely reforms the threads as it comes off.

When Is a Radiocommunication Not a "Radiocommunication"?
by Raymond , B.A. M.B.A. LL.B., VE4RDH

The *Radiocommunication Act* (which I shall simply refer to as, the *Act*) is the federal statute which governs almost every aspect of radio transmission in Canada. In order to become licensed ham radio operators, we were required to become generally familiar with the provisions of the *Act*, and more specifically, with the Regulations issued by the federal Cabinet under authority of the *Act*, prior to being issued our ham licence.

In addition to governing and regulating ham radio, the *Act* also purports to govern various other forms of radio transmissions, including commercial broadcasting and satellite television transmission and reception.

As a result of the wide-reaching nature of the *Act*, and more particularly, as a result of the interpretation given the *Act* by *Industry Canada* (formerly, the *Department of Communications*), by the federal Department of Justice and by the R.C.M.P., I thought I would bring to your attention an issue which is currently unfolding in the courts concerning a key provision of the *Act*.

In May, 1993, several Winnipeg satellite television dealers were raided by the R.C.M.P. and subsequently were charged with violating the provisions of the *Act* dealing with descrambling of "encrypted subscription program signals". Allegations were made by R.C.M.P. officers that the dealers modified certain Videocipher II descrambler boards so as to enable the descramblers to receive certain U.S. satellite television signals (including Home Box Office and Cinemax) without subscription to those services.

Although there are several evidentiary and legal issues involved in the actual prosecution and defence of the charges, one issue that may be of interest to ham radio operators, particularly those familiar with satellite or moon-bounce technology, is the following: "What exactly is a radiocommunication?"

The *Act* provides the following definition: "radiocommunication" or "radio" means any transmission, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature by means of electromagnetic waves of frequencies lower than 3000 GHz propagated in space *without artificial guide*; [emphasis added]

Subsequent provisions in the *Act* create offences related to the descrambling of "encrypted subscription programming signals," which in turn are dependent upon the above definition of "radiocommunication". Thus, if a satellite television signal does not constitute a

"radiocommunication" as defined, decoding the signal does not contravene the *Act*.

The defendant retail satellite dealers, whose trials are all scheduled in the next few months, argue simply that satellite television transmissions are not "radiocommunications" as defined in the *Act* because they are not transmissions propagated in space *without artificial guide*. They argue instead that satellite television signals can be received only *with* the use of artificial guides: namely reflector dishes and wave guides which are used to

(1) concentrate the signals so as to effect a (roughly 100:1 concentration, or 20 dB) *gain* not otherwise realizable by an omni-directional antenna and so as to similarly reduce ambient noise that would otherwise be received by an omni-directional antenna; and

(2) to channel the signal so as to take advantage of vertical and horizontal polarization (doubling the signal carrying capacity of the satellite), and so as to place the signal's wave directly onto the antenna's probe.

Of course, Industry Canada and the Department of Justice do not agree with this interpretation. If they were to accede to this argument, any radio transmission which uses any form of wave guide, including microwave, radar and all guided telephone radio transmissions, as well as all pay-per-view satellite transmissions would fall outside of the regulatory control of the government.

At trial, the defendants intend to introduce expert witness testimony regarding the technical nature of satellite television transmissions in order to prove their point. The Department of Justice similarly intends to call an expert witness to refute the defence witness testimony.

What is *your* guess as to whose interpretation will be accepted by the courts? That of the defendants, or that of Industry Canada? Stay tuned.

The author is a lawyer in private practice in Winnipeg, and acts as defence counsel to two satellite television dealers charged with offences under the Radiocommunication Act.

SO YOU WANT TO HAVE A SHACK, EH?
by the Foxtrots

When I first became a ham in 1984 I couldn't understand why everyone used to talk about a "shack" instead of radio room or office or something equally technical-sounding. The last shack that I had built was a tree fort in my backyard when I was a kid. Now that I was all grown up and mature and embarking on a hobby

centred around delicate and complicated electronic equipment, I felt that the room which housed this stuff should have a much more grandiose name than just a "shack".

Since that day ten years ago there has been much water pass under the bridge. In that time I have drilled many holes in the wall for various cables, built 5 or 6 different configurations of shelves for the seemingly ever-changing array of radio and computer equipment that I have to have, installed and re-arranged bookshelves to hold those all important manuals and magazines and call books, stuffed boxes and drawers with bits and pieces that I know I will someday need, and just generally tried to figure out how I can cram more and more and more stuff into the same cubic volume.

Also, since that dimly recollected day, I have spent countless hours in this room working many countries around the world, learning about radio propagation and making new friends. This room has been my window to the world and lots of days it has been a very exciting place to be. I have finally come to realize that this is truly what makes it a "shack" and not just a radio room.

RAC bulletin #1 de ve3yca Steve ve3grs at the keyboard

RAC news bulletin 11-94 packet edition, 6 April 1994
issued at RAC administrative office

Item 01. Emergency Prepared

If an emergency strikes your community are you prepared? Here are some tips passed on through the St. Catharines feedline bulletin. after the emergency:

- 1 - Ensure the safety of your family and immediate neighbours;
- 2 - Monitor a local broadcast station;
- 3 - Stay off the telephone, unnecessary telephone traffic may delay or prevent vital emergency calls;
- 4 - Monitor your local repeater(s). has your club decided on an emergency simplex frequency, in case the repeaters are knocked out? Know those frequencies.
- 5 - Avoid unnecessary radio traffic, monitor and respond when appropriate;
- 6 - Accept only health and welfare traffic going out of the area. Do not accept incoming traffic as you will then have to use the phones. Do some advance planning with respect to your radio station. What will you do for power? Do you have an emergency antenna system you can use if your regular gear is disabled? Are

you equipped with cables, feedlines and connectors? You may not have power for soldering. are you familiar with net operating procedures? Could you handle net control if necessary?

Item 02. Lightning Goes Both Ways

On April 28, 1990, a unique video frame was captured on shuttle mission sts-31, using the payload-bay tv camera, that may shed some light on the nature of lightning. the video image showed a vertical discharge upward into clear night sky from a thunder cloud over the ivory coast of Africa. The estimated height of the vertical discharge was at least 31 km. Future NASA studies may strengthen the link between inbound solar particles and earth lightning.

This item from the Iroquois Amateur Radio Group, Raccoon Times, reported by ve3owx.

Item 03. Radios To Handle Faster Packet Speeds

Back in January, this bulletin carried an item which said that higher packet radio speeds were going to be necessary if the medium was going to meet the higher speed challenges of future communications. an item in the South Pickering SPARC Gap mentions the new Alinco dr-1200th which offers high speed (9,600 baud) vhf fm data radio.

Item 04. RFI Complaints May Force Your Station To Shut Down

If a radio signal transmitted from your equipment interferes with your neighbour's inadequately shielded tv, vcr, audio equipment, or even their electronic organ, under new proposed regulations you could be ordered to close down. Poorly designed, substandard electronic equipment is very susceptible to RFI, even from very low power transmissions. It is the department's reluctance to set and enforce manufacturing standards, such as Europe and the USA have, that many see as the reason why Canada may soon become the dumping ground for this equipment. Many amateur radio operators are convinced that the new proposal by Industry Canada (IC) is taking a step backwards. The department is suggesting a field strength measurement be used at the site of the equipment which is being interfered with. If it is your radio equipment that is causing the interference, and your signal strength is over the standard set by the department, you may be ordered to cease operations or modify the operation of your equipment so that it no longer causes interference.

Rev. Glen Betts ve7cxj, recently wrote to the Honourable John Manley, Minister of Industry to voice his concerns over the issue saying, "I believe that the

guide lines for designers, manufacturers and importers of electronic equipment that are now suggested be made into what they were intended to be in the first place; they should become law". The Halton amateur radio club February bulletin carried the content of his letter in full.

Ben Kendall ve6fn, writing in the Northern Alberta Radio Club emitter on the same subject says, "an injustice is being committed if we allow this proposal to proceed". He urges everyone to become active and let their voices be heard.

If you plan to write to Mr. Manley, his address is: The Honourable John Manley, Minister of Industry, C.D. Howe Building, 235 Queen Street, Ottawa, k1a 0h5 Keep in mind that no postage is required when writing to the minister. You may also wish to send similar correspondence to your member of parliament which may also be mailed postage free.

RAC bulletin #2 **de ve3vca Steve ve3grs at the keyboard**

RAC news bulletin 11-94 packet edition, 6 April 1994 issued at RAC administrative office

item 05. New Modems Setting Speed Records!

New modems set to be released to the consumer market this year will surpass existing data transfer rates of telephone modems. The ITU-t V.34 standard modems are engineered to work over standard telephone lines while supporting a data transfer rate of 28.8 kbps. the current V.32 standard modems in wide use today support a data transfer rate of 14.4 kbps. Besides allowing a faster file transfer, the data rate available in the v.34 series modems will allow multiplexing of voice and data over a single telephone circuit. Such applications will require the use of some form of multiplexer in addition to the modem. The new V.34 modems will likely come to market with a price tag of around \$600 us.

V.34 modems aren't entirely without their caveats though. it is important to note that some "pc" serial ports will not support data transfer rates much more than 19.2 kbps. Using higher speed serial cards incorporating 16550 uarts (universal asynchronous receiver transmitter) may clear the speed bottleneck for users of the new v.34 modems. Users may also find that their existing telephone service and long-distance circuits may not support the somewhat more demanding transmission requirements of higher speed modems. Most telephone companies in North America will not guarantee data transmission over typical pots (plain ordinary telephone service) installations. If you have problems moving data at 14.4 kbps on your telephone line, a new 28.8 kbps modem might not be the best immediate choice. Some telephone companies offer a "voice band data grade"

service that will guarantee some transmission parameters required to support high speed data service.

While the V.34 technology rolls out, manufacturers are beginning to integrate dsp (digital signal processing) technology into new modems. Using dsp means that modem design which relies heavily on filtering and complex waveform generation can now be made user upgradeable. Dsp modems can be manufactured using firmware that can be updated as improvements to the product are made or as new transmission technologies emerge. The above was written by Andy Mitchell ve3cw.

Item 06. Active Amateur Radio Operators in Canada

As of February 1994 there were 41,850 active amateur radio licences in Canada, according to an Industry Canada (IC) release.

Now for a look back. The Quinte Amateur Radio Club February 1994 bulletin carried an item originally printed in the Kingston Amateur news which showed the Canadian radio amateur population at 1,880 in November, 1934. Ve3's had the largest number of licensed operators in those days with 648. To put things in perspective, the Calgary Amateur Radio Association, hosts of the first National RAC Convention this July, has a current membership very near 600. They are the largest club in Canada.

Here's how the 1934 breakdown went:

ve1	maritimes	183
ve2	quebec	236
ve3	ontario	648
ve4	manitoba, saskatchewan, alberta	490
ve5	bc, yukon, n.w.t.	319
ve6	training schools toronto	2
	vancouver	2
	total	1880

Annual fee for licence was \$2.50. Examination fee was 50 cents. Code test speed was 10 wpm. Only British subjects were permitted a certificate of proficiency in radio. Operation on 160, 40, and 20 was cw unless Department of Marine Radio Branch endorsement was given for phone operation on 160, 80 and 20. No phone was permitted on 40 metres. Phone was permitted on 10 and 5 metre bands. Portable operation was limited to the 5 metre band in the operator's home province only.

There were 104 ve9 commercial experimental stations including Ontario Forestry Branch, universities, cpr, mining companies and Canadian Marconi.

New Packet Freqs
by Keith, VE3OY @ VA3BBS

This is part of a message that came from VE3DSS to prospective members of the RAC band-planning committee. It is from this extract that new packet freqs will be assigned in the metro area. In our case freqs will be assigned between 144.3 to 144.50 inclusive..

We need spectrum for Packet operations, in the short and long term, The original 2 metre CRRL/RAQI/RAC Interim Plan showed 144.3 - 144.5 MHz for Satellite. AMSAT has advised me that they have no future plans in this sub band, so it may be a good place for FM voice simplex and Packet operations. (We need to discuss bandwidths and data rates, etc .. or we can just leave that to local co-ordination).>>>>

Given the growing Packet operations on the "upper simplex" channels in the U.S. and Canada, perhaps we should consider Packet sub bands up there as well as between 144.4 and 144.5 MHz, in addition to codifying current operations.

We have already started to assign freqs between 144.30 and 144.50 as we could no longer wait for AC to start the band-planning committee. While the requirement may not exist for these freqs in some areas, in and around Toronto local co-ordination is already starting to assign these freqs. You might want to consider doing likewise should you find that you do not enough packet freqs in your area..

How To NTS (Part -3)
by W6CUS Am. Red Cross, Richmond,
CA #:2210 Z:94804

UNBUNDLE YOUR MESSAGES

(No Book Traffic) If you have more than one message even if they are going to the same state or section, please send them as individual packet BBS messages. Please remember that traffic eventually will have to be broken down to the individual addressee somewhere down the line for ultimate delivery. When the originator places two or more NTS messages destined for different addresses within one packet message, eventually the routing will require the message to be broken up by either the bbs sysop or the relay station; placing an additional unreasonable burden being on them both. Therefore it is suggested that the originator to expend the extra word processing in the first place and create individual messages per city regardless if there are common parts with other

messages. This means that book messages are not suitable in packet at this time unless they are going to the same city.

NCN AND SCN BOUNDARIES

The Boundaries between NCN and SCN are often unclear to many. They are based on the ARRL Division lines which in turn are based on Sections lines which in turn are based on County lines. SCN is composed of Los Angeles, Orange, Inyo, Riverside, San Bernardino, Imperial, San Diego, Santa Barbara, San Luis Obispo, and Ventura Counties. NCN then is the rest of the California Counties not just mentioned plus the entire State of Nevada. For a further elaboration of SCN and NCN boundaries, see the file, "CALNVNET.NTS" in most WestNet BBS. Amateurs are encouraged to use the NTS frequently - the experience will be fun and your friends will appreciate hearing from you ---but, most important, the experience will also give you training for emergency communications (which all Amateurs should be able to work with when the occasion demands--- Mexico City, etc.)

THIRD PARTY AGREEMENTS

The FCC limits our ability to engage in third party traffic with foreign nations. Currently third party traffic is permitted with Antigua , Barbuda, Belize, Canada, Costa Rica, Cuba, Cyprus, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, St. Christopher, Nevis, St. Lucia, St. Vincent, Argentina, Bolivia, Brazil, Chile, Columbia, Ecuador, Guyana, Paraguay, Peru, Trinidad, Tobago, Uruguay, Venezuela, Geneva (4U1ITU), Israel, Jordan, Ghana, Liberia, The Gambia, Swaziland, Australia, Pitcairn Island. These agreements are constantly changing and "QST" magazine publishes the updates regularly.

FURTHER REFERENCES

The following files are found on most WestNet BBS:

CalNvnet.NTS : A list of all the NTS section nets in California and the breakdown of section boundaries. Please note that the May 1986 issue has the incorrect time for SCN. SCN begins at 1830 local time not 1900 local.

Desig.NTS: A list of the up-to-date valid designators that are support by the packet system at this time. This list is periodically updated. Please note there are still a few states and provinces that are not yet interfaced with packet and thus should not be used at this time.

Whatis.NTS: Short history of NTS and what it does. The above files may be under different names on your BBS. Ask your sysop. More info to NI6A @ W6CUS.

Further information on NTS can be obtained from your local Section Traffic Manager or the ARRL, 225 Main St. Newington, CT 06111, especially; "The Public Service Communications Manual" "CD-218" (Net procedure, abbreviation, and message format aid) "The ARRL Field Organization" (FSD 300) "The ARRL Net Directory" \$1.00 (FSD 50) "The ARRL Field Resources Directory" "The ARRL Numbered RADIOGRAMS" CD-3 (Rev 0188)

WARC JACKETS **Last Chance to Order**

At the next WARC meeting, May 9, we will be taking the last orders for club jackets this club year. If you are interested in having a club jacket please come out to the meeting to be fitted and bring your cheque book.

FLEA MARKET NEWS **by Pat, VE4PLG**

The spring flea market of W.A.R.C. was held at the West Kildonan Arena on April 17, 1994. Between 350 & 375 people came out to see the new, larger location. It was a great success. W.A.R.C. realized a profit of about \$450.00 after expenses. From the comments received, the new location was well liked by just about everyone. For volunteering their time to make the flea market a success, I wish to thank the following VE4's: AAI, ABA, BDB, CN, CY, EF, GLR, JBN, JR, OPC, SE, SVB, TNC, UA, XYL & YF. At this time I wish to thank VE4CN, ROBERT CRAMPTON for doing a great job of talk-in. Special thanks go out to my sister PEGGY HUGGINS, my daughter LYNN GIESBRECHT and grandsons TYLER & GERALD HAILSTONE, (NONE OF WHOM ARE HAMS) for their help with the clean-up and the canteen.

A very special thank you goes out to DAN MICHAELS VE4SYG without whose help this would never have been a success. Dan did a large part of the preparation. Thanks again everyone!

HOME BREW NIGHT APRIL 11 **by Dick, VE4HK**

April 11 was Homebrew Night at the Winnipeg Amateur Radio Club meeting. Our crack team of judges, namely Rick VE4OV, Ray VE4PT and Mike VE4MP were kept hopping, evaluating all the different projects. They did their usual superlative job of selecting the cream of the crop.

The project that I remember best was VE4WTS direction finding antenna. It must be ideal for 2 meter fox hunting. Did you think it looked like moose antlers? There were quite a few other deserving designs, too. Everyone who participated deserves our congratulations!

I would especially like to thank the companies that donated the prizes for Homebrew Night. The first prize, a 1994 hardcover ARRL Handbook, won by VE4AKM, was donated by Circuit-Test Electronics from Vancouver.

The second prize, a 2 meter magnet mount came from Comtelco Electronics, 1456 Logan Avenue, right here in Winnipeg.

Third prize, a Weller WP35 soldering iron, and a roll of solder, came from Cooper Tool and Smith Paterson and Associates, respectively.

ARES MEETING

For any Winnipeg Ham who is interested in ARES, there will be a meeting on May 25th 7:30 PM, at Sturgeon Creek Regional Secondary School in the lecture theatre. This meeting will be confirmed at the two MRS nets prior to the meeting. A list will also be circulated at the May 9th WARC meeting.