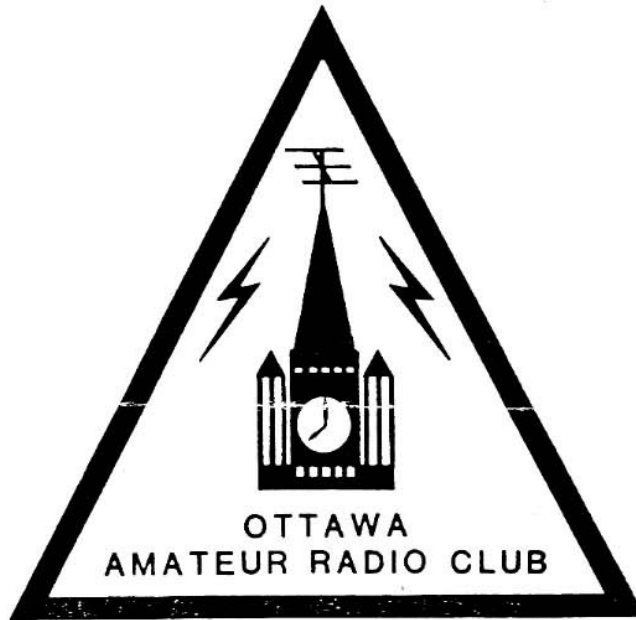


MARCH 1994



NEXT MEETING WILL BE HELD
WEDNESDAY, MARCH 2, 1994

GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA

VE3LXP

The Ottawa Amateur Radio Club, Inc., Box 8873, Ottawa, Ont., K1G 3J2

President	Paul Coverdale, VE3ICV	820-6643	763-4277
Vice-President	Roger Swickis, VE3BZR	234-9836	228-6310
Secretary	Johnny Mroz, VE3EIE	729-0411	
Treasurer	George Roach, BE3BNO	234-0885	738-2372
Past-President	Peter Jago, VE3PWJ	836-1013	
Directors	Ken Willing, VE3CCV	733-9140	225-9776
	Doug Yuill, VE3OCU	820-3202	
	Barry Hall, VE3BXH		
Packet Group Chairman	Eric Taada, VE3SGG	749-4264	998-9805
Repeater Chairman	Harrie Jones, VE3HYS	739-9365	738-2372
Net Manager	Wayne Greenough, VE3JSQ	836-5320	724-5464
EMI Committee Chairman	Ralph Cameron, VE3BBM	825-1634	225-2850
Membership Chairman	Richard Hagemeyer, VE3UNW	225-3275	953-0638
Nat. Cap. Award Manager	Brian Summers, VE3JKZ	523-1535	738-6263
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Delegated Examiners	Richard Hagemeyer, VE3UNW	225-3275	
	Mike Kelly, VE3FFK		788-2600

THE OTTAWA AMATEUR RADIO CLUB, INC. is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area; and to the advancement and achievement of club members.

REGULAR MEETINGS of the OARC, Inc., are held on the first Wednesday of each month (except July and August) in the Champlain Room (2nd floor of the Old Teacher's College) of the RMOH HQ complex on Lisgar St., Ottawa, at 1915 hours. Further details about each meeting is elsewhere in this publication.

THE OARC EXECUTIVE normally meets on the second Wednesday of each month at 1930 hours. Contact the President to confirm the date of the next meeting.

PACKET RADIO MEETINGS will be held at 7:30 p.m. on the last Thursday of every 2nd month, starting September 1993, at the Museum of Science and Technology. This is an OARC technical meeting open to all who have an interest in packet radio.

DEADLINE FOR COPY is the second Wednesday of each month. Make yourself better known to fellow members and other amateurs, too, by giving us an article, technical or otherwise, relative to our hobby.

MATERIAL PUBLISHED herein does not necessarily represent the official OARC viewpoint. Items may be reprinted by Amateur Radio or other publications provided that proper credit is given to the author and to the OARC, Inc.

JUNIOR MEMBERSHIPS - To encourage young people to join the club and to participate in amateur radio, the club is opening a junior class of membership. Dues will be at a 50% discount but the junior member must pick up his/her copy of the Groundwave (preferably at the meeting).

RADIO AMATEUR CALL BOOKS are available at many local libraries. Ask at the information desk.

SAFETY BELTS AND AN ENGRAVING PENCIL are available for loan to club members. The engraving pencil (to mark valuables for identification in case of loss or theft)

and the safety belts with pole straps are available to any members. For the belts, a refundable deposit consisting of a cheque equal to the replacement value of the belts is required. Contact the President for the engraving pencil; and Paul, VE3ICV, at 820-6643 (West End) or Brian, VE3JKZ, at 523-1535 (East End) for the belts.

THE CAPITAL CITY NET meets every Monday at 2000 hours on the Club Repeater VE2CRA (146.34/.94) to pass traffic and to make announcements of interest to amateurs in the National Capital Region.

PACKET RADIO VOICE NET meets following the Capital City Net on VE2CRA at 2040 hours. This is an informal net to answer questions about packet radio, pass along operating hints and provide information for future packet operators.

THE SWAP NET is a service provided and conducted by Ed Morgan, VE3GX. This feature appears on the Capital City Net, noted in the foregoing paragraph. To list items and make inquiries, call Ed Morgan at 733-1721.

POT-HOLE NET is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club, and conducted every Sunday at 1000 hours on 3.760 Mhz. All amateurs are welcome to check in. The Swap-Net is a regular feature.

POT-LID CW NET is an informal slow-speed CW net sponsored and conducted by Ed, VE3GX, and meeting every Sunday, except during July and August, at 1100 hours on 3.620 Mhz, to promote interest in CW and CW procedures.

REPEATERS

VE2CRA	Voice	146.94/34
		443.300/448.300
VE3OCR	Packet	145.01(sx) Inter city links
VE3OCR	Packet	145.07(sx) Local Area net
		for QSO and Packet BBS.
56 kbps	Packet	220.55/433.55
VE3XDX	DX Info	146.25/146.85;
	Packet	145.11(SX)

For further information, please contact repeater chairman.

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MINUTES OF OARC GENERAL MEETING
HELD FEBRUARY 2, 1994

The meeting was called to order at 19:25 hours.

Visitors

VA3DUF, VA3MWK, and VA3WHS.

Speaker

Our feature speaker was absent for private, personal reasons.

So, what did the assembled ragchewers do to fill in the time? We all talked about radio stuff and related interests. And to no surprise, we spent the evening in no time at all.

Announcements

Fred Green (VE3IO), late autumn's feature speaker on alternative fuels vehicles, brought a fully-electric conversion of a fibreglass sports car (Pontiac Fiero) to the underground garage. Fred invited those interested in seeing this car to go down to the underground garage with him after the meeting.

John Athey (VE3GS), a DX specialist, talked about a d Expedition on 21.295 and 14.195 to an island near Antarctica. The station call is PYOPI.

Paul Coverdale (VE3ICV) will be in Switzerland and will be on the International Telegraph Union's station

in Geneva but by the time you read this, he'll be back in town. The station's call is 4UYTU and Paul hoped to connect with us daily around 14:00 UTC on 14.140, the 20 meter calling frequency.

Doug Burrill (VE3CDC) talked about an American government study about amateur radio transmitter radiation and the possible effects that it has on people. Doug will submit an article on this topic to the Groundwave. The article will be from the American radio regulatory commission, the FCC. (The article is in this month's Groundwave - see page 5. Ed.)

George Roach (VE3BNO), early winter's feature speaker on building broadcast studios, talked about an EM study that was done for the new transmitter site for the CFRA/KOOL-FM broadcast stations.

Peter Hafichuk (VE3LBW) mentioned an upcoming flea market in Durham, Ontario.

Richard Hagemeyer (VE3UNW) announced a free membership for all hams licensed since September, 1993. Tell all the new hams you know to come out to a meeting and tell Richard that you want a free membership.

Michel Pilon (VE3BUP) talked about the Spring Tulip Festival and how this would be a great time and place to set up an amateur radio station. You can reach him through packet @VE3JF, or see him at the March meeting.

Paul Coverdale (VE3ICV) reminded us that it is time to start thinking about planning this year's Field Day.

Open Discussions

Fred Green (VE3IO) started a discussion on "What to do to unlock a frozen rotator?" This topic brought out many workable suggestions for us during this year's uncommonly long deep freeze.

Peter Jago (VE3PWJ) started a discussion about VHF Sprint contests and terrestrial DX. Peter was recently recognized by QST magazine for his interest in this area. The discussion determined that to get terrestrial DX, sideband and horizontal polarity are the best.

Paul Coverdale (VE3ICV) started a discussion on the recent troubles of our Anik E1 and Anik E2 satellites. The discussion speculated about ESD and hackers.

George Roach (VE3BNO) mentioned that the four 420-foot high towers for CFRA/KOOL-FM were now raised and are soon to be operational. This fact prompted people to ask if the old towers could be used - theoretically that is - for amateur transmitting, on 160 meters perhaps? George talked about the computer programs he uses that model antenna systems and that, yes curiously enough, he did model the old towers. Much discussion arose about modelling other structures and the programs they used.

Michel Pilon (VE3BUP) talked about why he voluntarily moved from the HF bands because a neighbour's appliances went "active" every time that he transmitted HF. He now enjoys satellite, packet and VHF. Much discussion arose about shielding and filtering although none of what Michel tried out to date had worked effectively enough to solve his neighbour's troubles.

Paul Coverdale (VE3ICV) started a discussion about choosing lossy ferrite toroids to prevent RF interference. Paul talked about the W2DU balun. The discussion also mentioned that Ralph Cameron (VE3BBM) used to sell toroids and the question "Did he still do so?" was asked - no-one knew if he still did.

Peter Hafichuk (VE3LBW) started a discussion on the public service needs for having an autopatch available on repeaters in our area. The discussion

also focused on how to identify the people abusing the system.

Mike Kelly (VE3FFK) talked about the recent bunnyhunt on 2 meters CW. The winners were Jacques Choquette (VE3TSC) and Lawrence Wilcox (VE3WEH) who used an eight-monopole, switched antenna array to find "tha' pesky wabbit".

Peter Hafichuk (VE3LBW) started a discussion about our flea market date by asking if late October and early November was a good time to schedule the event. Most agreed that it was a good date because, as one person put it, "Enough time has passed since the summer vacation that we could build up savings for new radio stuff, and it was still far enough away from Christmas to avoid dipping into the Christmas gift account."

Things we now know

VA3 calls and what to do to get them - straight swaps cost no money until renewal time. Two-letter VA calls are available to those eligible for two-letter VE calls. VA2 calls have been heard.

Question: Who is the "DOC"?

Answer: Our new, federal radio regulatory body is now INDUSTRY CANADA.

Meeting adjourned at 21:10 hours.

J.K.MROZ, Technical writer,
Ottawa, Ontario, CANADA

SPEAKER AT THE MARCH MEETING

The speaker at the March meeting will be Hugh Pett, VE3FLL, who will be talking about Micro-sats, DSP and other hi-tech matters.

**BIOLOGICAL EFFECTS AND POTENTIAL
HAZARDS OF RADIOFREQUENCY RADIATION
...AND ITS POTENTIAL IMPACT
ON AMATEUR RADIO**

The Federal Communications Commission is considering new rules that could require radio amateurs to show that they comply with guidelines for radio frequency radiation safety recommended jointly by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers (IEEE).

This FCC proposal raises extremely complex engineering and public health issues; compliance could cost broadcasters and other commercial licensees millions of dollars. The proposal could also have a huge effect on radio amateurs.

For about 10 years the FCC has required many of its licensees (radio and television stations and many other commercial services) to prove that their operations would not expose their employees or the public to RF radiation in excess of the ANSI guidelines. However, up to now radio amateurs have been exempt from the ANSI guideline.

In the current proceeding, the FCC proposes to: First, replace the 10-year-old ANSI C95, 1-1982 guideline with the new and much stricter ANSI C95, 1-1992 guideline. Second, to eliminate the categorical exemption for radio amateurs, which could result in amateurs having to prove that their transmissions do not expose anyone to RF radiation in excess of the 1992 ANSI guidelines.

In the past, the FCC has required many commercial licensees to provide engineering calculations or measurements (or in some cases, both) to show that their transmissions did not create RF fields exceeding the ANSI guideline as part of the environmental review of their license applications.

In Docket 93-62, the FCC has not explained how amateurs would be expected to provide that they meet the new ANSI standard.

The FCC also left open the question of whether amateurs would merely have to meet the ANSI guideline for exposure in places where everyone is aware of the RF fields (this is commonly thought of as the standard for occupational exposure) or the much stricter ANSI standard for exposure to the general public.

Members of the American Radio Relay League's Board of Directors are understood to have discussed this FCC proposal at their July meeting and again at a later Executive Committee meeting. Although the ARRL's comments in Docket 93-62 had not yet been formally filed with the FCC at this writing, board members have indicated that ARRL will argue for a continuation of the categorical exemption for radio amateurs, and for use of the more liberal standard for occupational exposure if amateurs are not categorically exempt.

If adopted in its most stringent form, Docket 93-62 proposal could result in enormous costs for amateurs, because accurate meters to measure RF power densities are expensive.

Also, the proposal could curtail certain amateur radio activities. In 1990, the FCC and the Environmental Protection Agency jointly conducted a field survey of the HF fields at the stations of volunteer amateurs in Southern California. The FCC/EPA team concluded that most amateur activities do not create RF fields in excess of either the old or new ANSI standard. A well-matched antenna at least 35 feet above any inhabited area, fed with a well-shielded coaxial cable, produces fields far too weak to create any health concern, according to the FCC/EPA team's measurements.

However, the FCC/EPA measurements showed that near a mobile, indoor or attic-mounted antenna, the RF fields sometimes exceed the ANSI standard. Conceivably, the FCC could now adopt rules regulating the circumstances under which such antennas could be used by amateurs.

Another controversial issue concerns hand-held transceivers. All transmitters with less than seven watts of output power were categorically exempt under the old ANSI standard, but the new standard reduced that exemption by a factor of five (to 1.4 watts) for exposure to persons not aware of the RF fields, reflecting the ongoing scientific debate about the safety of handy talkies.

Why is the FCC proposing to adopt the new ANSI standards, and to remove the exemption for amateurs? The FCC is responding to the growing body of medical evidence that under some circumstances electromagnetic fields, including both RF fields and the low frequency fields created by power lines and home appliances, may pose certain health hazards. There has also been sensational publicity in the mass media about this controversial issue. When the FCC adopted the Notice of Proposed Rule Making in Docket 93-62, FCC Commissioner Ervin Duggan filed a separate statement in which he said that the FCC's action was NOT prompted by the sensational media publicity. However, it seems clear that the FCC cannot ignore this issue in part because of the growing public concern.

While separating fact from fantasy is difficult in any evolving field of scientific inquiry, the problem has been greatly complicated in the case of electromagnetic radiation (EMR) by both the emotional nature of the public debate and the huge financial stakes for industry if EMR levels must be reduced to protect public health.

While separating fact from fantasy is difficult in any evolving field of scientific inquiry, the problem has been

greatly complicated in the case of electromagnetic radiation (EMR) by both the emotional nature of the public debate and the huge financial stakes for industry if EMR levels must be reduced to protect public health.

For example, if it can be shown conclusively that children living near high-tension lines have abnormally high rates of leukemia (as a number of studies conducted in several different countries have already indicated), the cost to electric utilities (and indirectly to all of us as ratepayers) could run into billions of dollars. Many power lines would have to be relocated, and wider buffer zones would have to be created along those that cannot be relocated for one reason or another.

Likewise, FCC licensees might have to undertake costly steps to minimize public exposure to RF energy, and the fact that there are questions about the safety of RF energy sources (including amateur radio stations) could lead to new restrictions on amateur antennas by local governments and homeowners associations, among other rulemaking authorities.

At this point, new research about the biological effects of EMR is reported in medical journals almost weekly. While there is a great deal that we still do not know, there is strong evidence that it does in fact have some health effects, even at low levels. This evidence comes from two different kinds of research; epidemiological studies of public health patterns and laboratory research into the effects of EMR on human and animal tissue.

Much has already been written in amateur radio publications and elsewhere about the question of EMR and health. The ARRL has a Committee on the Biological Effects of RF Energy that regularly monitors new research in this field. Ivan Shulman, WC2S, chairman of the ARRL Bio-Effects Committee, wrote a detailed article about the problem for QST several years ago.

The W5YI Report has published numerous articles about this issue, and new sections have been added to both The ARRL Handbook and The ARRL Antenna Book covering RF safety.

To summarize briefly, both RF and low frequency fields are classified as nonionizing radiation because the frequency is too low for there to be enough photon energy to ionize atoms. Ionizing radiation, on the other hand, has a variety of very serious (and well publicized) adverse health effects. But nonionizing radiation also has health effects.

It has been known since the early days of radio that at sufficiently high levels RF energy could heat body tissue enough to cause blindness, sterility and other health effects. What we are learning today is that even at athermal levels (levels too low to cause body heating) there are also demonstrable health effects. We know, for instance, that low frequency magnetic fields, as well as RF fields that are keyed, modulated or pulsed at a low frequency rate, affect that manner in which human cells inter-communicate. Cancer-fighting T-cells in the immune system rely on subtle chemical and electrical messages that pass through the cell membrane to determine that a particular cell has become cancerous. It has been shown in laboratories that low-level EMR can alter this vital communication through the cell membrane. Other laboratory research has shown that low level EMR can disrupt the human body's circadian rhythms (the body's internal "clock"), cause chromosome damage, and alter the body's level of melatonin, a hormone that reduces the risk of certain cancers if present in appropriate quantities.

Research has shown that EMR at levels even weaker than the Earth's geomagnetic field has biological effects. How can this be? The Earth's magnetic field as a static field. All of life has evolved in this constant field. Natural

electromagnetic fields are also created by the sun and thunderstorm activity; life as we know it has adapted to those fields. However, in the last 100 years, man-made fields with very different intensities and spectral distributions have altered the natural electromagnetic environment in ways that have their own biological effects.

In addition to the laboratory research that has identified biological effects of EMR, there has now been extensive epidemiological research into EMR and health. In fact, Dr. Samuel Milham's much-publicized 1988 medical journal article about amateur radio and cancer was based on an epidemiological study of the mortality rates of amateurs in California and Washington state. The study noted statistically significant excess mortality among radio amateurs from two kinds of cancer, but did not prove there was a causal link.

There have been many other studies correlating occupational exposure to RF and/or low-frequency fields with higher than normal rates of various cancers, most notably leukemia, non-Hodgkins lymphoma and brain cancer (Milham's study of amateurs found significant excess mortality from the first two, but not from brain cancer.) As noted earlier, a number of studies have shown that children living near high-tension lines have higher than normal rates of leukemia. The recent nationwide Swedish studies confirmed earlier findings of both excess leukemia among children living near high-tension lines and abnormal rates of certain cancers among workers exposed to high levels of EMR. Another study found that microwave workers with 20 years of exposure to EMR had 10 times the normal rates of brain cancer if they were also exposed to soldering fumes or electronic solvents. Typically, these chemical factors alone increase the risk about twofold.

On the other hand, there are some nagging questions that remain unanswered.

Several studies of workplace EMR exposures and health have yielded contradictory results. Often spot measurements of electromagnetic fields do not correlate with the observed health effects, even within homes near power lines. There is also evidence that there may be window effect: Some studies have shown health effects at certain frequencies but not at others (e.g., 25-30 Hz and 45 Hz, but not 35-40 Hz), at certain field intensities but not in stronger or weaker fields, and in certain relationships to the Earth's static magnetic field but not others. The normal adage about carcinogens, "If some is bad, more is worse," may not apply to EMR. We appear to be dealing with very subtle and complex relationships between EMR and health.

In view of the uncertainties in this field, many public health officials are now urging "prudent avoidance," the common-sense idea that it is wise to avoid unnecessary exposure to EMR until there is a more complete understanding of its health effects. This philosophy has led some countries (notably Sweden) to adopt exposure standards far more stringent than even the new 1992 ANSI standard. And in the United States, the National Council for Radiation Protection and Measurement has adopted a voluntary standard that in some respects is considerably stricter than the new ANSI standard. In fact, the ANSI committee that adopted the new standard was criticized by some public health researchers for being excessively influenced by industry groups with a financial stake in the status quo.

Be that as it may, the new ANSI standard exists, and the FCC now proposes to use it as a processing guideline for licensed services, including amateur radio stations. (Excerpted from a paper by Wayne Overbeck, N6NB and published in the "The Proceedings of the 27th Annual Conference of the Central States VHF Society".)

de W5YI Report per Doug Burrill, VE3CDC

RADIO AMATEURS OF CANADA NEWS SERVICE

OUTGOING QSL BUREAU - The outgoing RAC QSL Bureau has moved to Alberta. The address is: RAC QSL Bureau, Bag 5000, Morinville, AB., T0G 1P0. The custodian is Norm Waltho VE6VW. Norm has prepared the following information which he hopes will help make QSL card handling easier for everyone.

The RAC QSL Bureau outgoing service is for RAC members only. The Bureau undertakes to send your cards around the world for you. This includes Overseas and American destinations. If you consider current airmail rates, it takes about 40 cards a year to pay for your RAC membership.

Here is how it works:

- Only regular sized QSL cards will be accepted. Any oversized cards will be folded;
- All QSL cards must have the callsign of the destination clearly marked on the upper right hand corner;
- QSL cards should only be sent to active bureaus;
- DXpedition, special prefixes and calls should have the QSL Manager's call clearly indicated. For example, please don't send W200, 8P9, ZLO, etc., unless you know who the QSL manager is;
- RAC members who are QSL Managers for other Radio Amateurs will be assessed \$1 for each 100 cards sent to the Outgoing Bureau for processing;
- Sort your cards alphanumerically. Sort cards for USA and Canada by call areas;
- Members using the Bureau for large volume DXpeditions and Club sponsored special events stations will be charged \$1 per 100 cards processed;
- Acknowledgement of receipt of cards will be given if you mail a self addressed stamped envelope with your cards;
- Your RAC membership number (include your mailing label), should be clearly displayed on the top left of the

mailing envelope;

- QSL cards received which do not conform to these guidelines will be put into a holding file. Members will be informed when this has taken place via a Bureau card. Members will have to pay a \$5 postage and handling fee to have cards returned. Cards remaining for a period exceeding one year will be destroyed.

RAC Bulletin Editor's note. Last month's RAC Bulletin received wide distribution and it contained an error in respect to the handling of QSL cards to the Outgoing Bureau. It said that your mailing envelope should contain only six or seven cards. This was incorrect. I regret this error and apologize for any inconvenience. Norm Waltho has told me that he doesn't care how many cards you include. (Item 16, RAC Bulletin No. 01-94.)

RAC QSL BUREAU (INCOMING) - Member societies of the International Radio Union (IARU), operate a worldwide system of QSL Bureaus. The Radio Amateurs of Canada (RAC), as the Canadian member society of IARU, operates a Central Incoming Bureau, and the incoming QSL Bureau for the 12 Canadian call areas.

IARU member societies send cards to the RAC Central Bureau. Cards are then sorted and forwarded to the Incoming Bureau in each call area. These bureaus use one of three methods to get cards to you. Even though RAC sponsors the bureaus, you DO NOT have to be a RAC member to use them. However, it is hoped that users will recognize that a benefit like the QSL Bureaus is worthy of your membership support.

The bureaus use one of these methods to get your cards to you:

- A) You send your bureau a quantity of 5x7.5 inch envelopes addressed to yourself. On the top left corner of each envelope print your callsign. On the top right corner of each envelope place enough postage to

permit the bureau to mail 50 grams.

- B) Send your bureau \$5 and your name, callsign and address. The bureau will send your cards to you charging the cost of envelopes and postage against your \$5 credit. You will be informed when to send more money;
- C) Send your bureau \$5 as in method B and addressed envelopes as in Method A. Do not place postage on your envelopes, the bureau will do this for you. You will be informed when to send more money or envelopes.

Please keep your bureau informed of any address or callsign changes.

Bureaus are operated by dedicated Radio Amateurs who volunteer their time to provide this service. You should know that it often takes a long time to receive a card through the bureau system. With the high cost of postage, foreign Amateurs and Amateur Radio Societies tend to ship in bulk, often only once or twice a year. If a much needed card is slow in coming, it is unlikely the holdup is at the RAC Bureau. Please be patient. Finally, do not send outgoing cards to an Incoming Bureau.

Here are the addresses of RAC Incoming Bureaus (for Ontario and Quebec - Ed.) and the handling method indicated by a letter A, B or C.

RAC VE2 INCOMING BUREAU Method A
A.G. DAEMEN
2960 DOUGLAS AVE.
MONTREAL, PQ
H3R 2E3

RAC VE3 INCOMING BUREAU Method A
THE ONTARIO TRILLIUMS
P.O. BOX 157
DOWNSVIEW, ON
M3M 3A3

(Item 17, RAC Bulletin No. 01-94.)

NEWS ON THE TRC-86 DISCUSSION PAPER - RAC is actively participating in discussions on the contentious issue known as Bill

TRC-86 and has asked individuals and clubs, because of the complexity of the issue, to refrain from direct comment to the Department of Industry.

TRC-86 is a discussion paper that proposes to make the measurement of radiated field strength a criterium in the resolution of complaints from lack of immunity. The proposal excludes AM, FM and TV broadcasting facilities but includes all other radiocommunications transmitters.

The discussion process includes direct response from the Radio Advisory Board of Canada members who represent a cross section of the majority of spectrum users in Canada. RAC has filed comments with the EMC subcommittee of the RABC, but a formal response from RABC to Industry Canada has yet to be made.

The original expiration date for comment on TRC-86, prior to placing such notice in the Canada Gazette for public comment was early 1994. This date has now been extended to second quarter 1994 as it has generated considerable discussion.

Ralph Cameron VE3BBM advises that background material on this matter is available from RAC. (Item 6, RAC News Bulletin No. 12-93.)

mk's WORDS

Feb 8/94 - It's the week before ski marathon, so I'm packing. I think some of the participants go through less preparation than we hams do. Like a few of you, I've found time to go skate-mobile on the canal. For me it's a good excuse to spend my lunch hour outdoors. For the rest of you, it's a good way to spend time with your (grand) kids, provided you're not too brittle and they aren't too little.

Before the weather gets so good that you forget about ham radio, Dan VE3DCL and Mark VE3HYU are doing another BUNNY HUNT. They say they will be hiding a transmitter at 13:00 Sat., Feb. 26, so drop all your other plans for that afternoon and come out and play. The one after that may end up being the search for the Easter Bunny.

I've recently found some interesting stuff in my mailbox, so what follows is a cheap imitation of a good column in a mag called Communications Quarterly (published by the CQ magazine folks). They call their column Quarterly Devices. I call mine Intermittent Devices... here goes: Sharp has announced an infra-red transceiver with an operating range of 3 metres, sending 38.4 kbits/sec on a 500 khz carrier. (Wireless digital headsets, anyone?) A company I've never heard of called Benchmark has a new "gas gauge" ic for ni-cd and nimh (nickel metal hydride) batteries, so we can tell how much talk time is left in our wonder toys.

Analog Devices sent a data sheet on something called a DDS modulator, which looks like a good bet for direct ssb modulation up to around 18 mhz or so.

Mitel has come up with a low power DTMF receiver that will run on 3v - another fun project to keep me indoors in the good weather, if it ever arrives.

Finally, both Fluke and a Canadian company called Omnex announced wireless data acquisition and control modules. I haven't thought of a good "ham" use for these yet, but I'm sure something would occur to me if they landed in my hands.

That's all for now, so think more warm thoughts. Last month's ones helped a bit, so keep it up.

LAST WORD... HOMEBREW (all kinds, again, coming up in April)