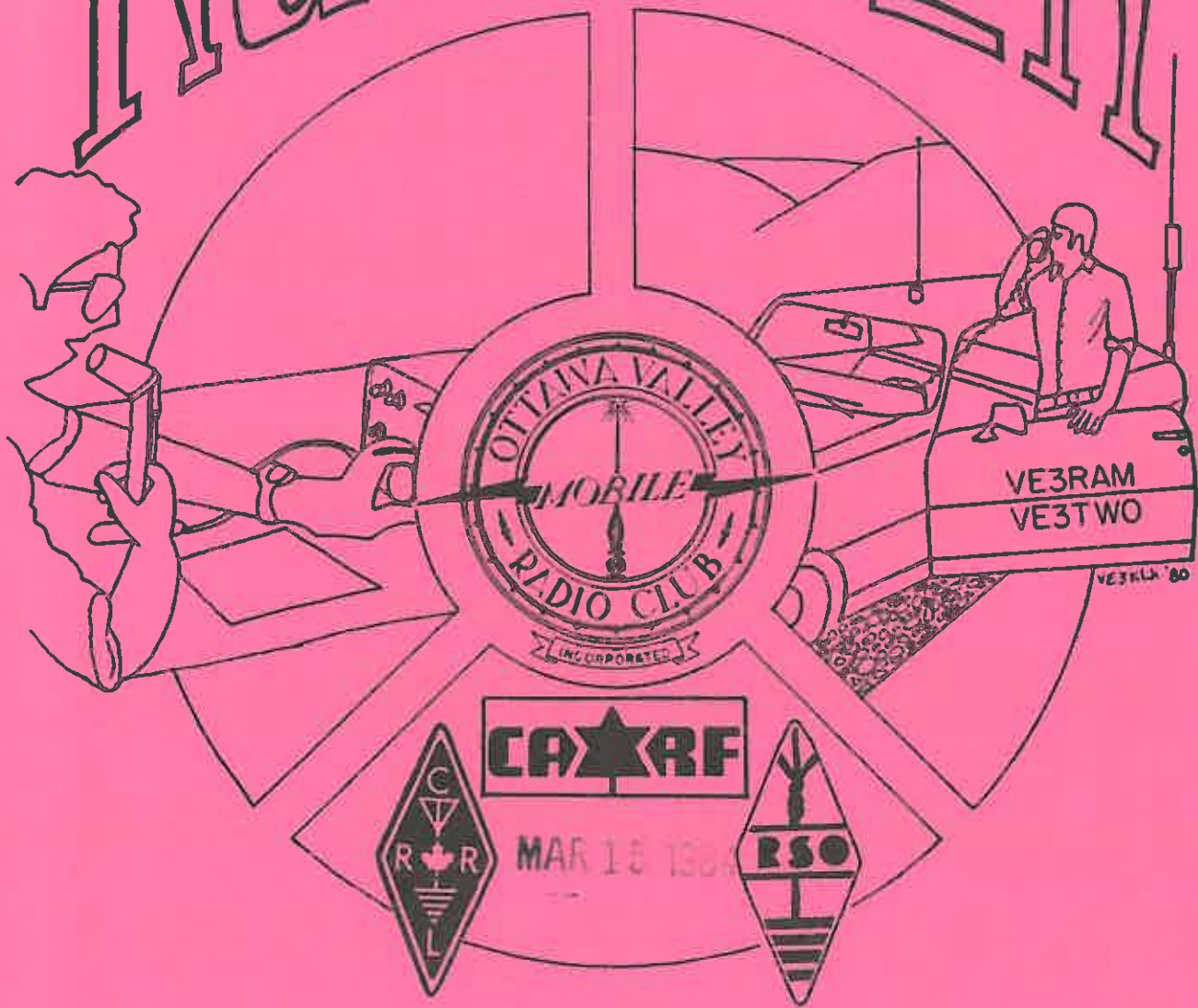


RÄMBLÄR



THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED

1983-1984 EXECUTIVE

PRESIDENT	Dave Coutts	VE3KLX	829-2537
VICE PRESIDENT	Fat Brewer	VE3KJQ	725-1528
SECRETARY	Bob Campbell	VE3KLK	729-7536
TREASURER	Vance Johnson	VE3OAO	824-9555
TECHNICAL ADVISOR	Bill Balke	VE3NPG	
PUBLIC RELATIONS	Alan Boyce	VE3LNH	722-8130
EDITOR	Jerry Wells	VE3CDS	225-7374
PAST PRESIDENT	Russ Pastuch	VE3FSN	828-9235

CLUB SPONSORED ACTIVITIES

POT HOLE NET - OVMRC Net - Every Saturday and Sunday, 10:00 local time on 3.76 MHz SSB. All radio amateurs are welcome to participate.

THE WISE OWL NET - OVMRC Net - Ragchew net each Friday Evening at 20:00 local time on the club repeater VE3TWO - 147.30/147.90 MHz.

CODE PRACTICE - Transmitted on VE3TWO by Dave, VE3KLX Wed. at 1900 local, 18, 15, 13, 10 and 7 wpm. Friday at 1900 local 40, 30, 25, 20, 18, 15 and 13 wpm.

VE3JW - Amateur Radio Station of the National Museum of Science and Technology. The OVMRC helps maintain the station and schedules operators for the station as part of an Amateur Radio public relations display. VE3JW operates on all HF Bands, both CW and phone. Slow scan TV is also demonstrated.

LOCAL AMATEUR RADIO ACTIVITIES

POT LID NET - Sponsored by Ed, VE3GX. An informal slow speed CW net meeting each Sunday (except July and August) at 10:00 Hrs on 3.62 MHz, to provide and stimulate interest and proficiency in CW procedures.

CAPITAL CITY FM NET - Sponsored by the Ottawa Amateur Radio Club Inc. every Monday night at 20:00 Hrs. Conducted on VE2CRA repeater 146.94/146.34.

SWAP NET - Sponsored and conducted by Ed, VE3GX, each Sunday as a part of the Pot Hole Net and each Monday as a part of the Capital City FM Net (except July and August). Ed may be reached at 733-1721 for listings and queries.

ALL CONTRIBUTIONS TO THIS BULLETIN GLADLY ACCEPTED

Membership in the OVMRC is open to all those interested in Amateur Radio. Regular meetings are held on the third Thursday of each month (except July and August) at 20:00 Hrs unless otherwise posted. Meetings normally take place in the auditorium of the Museum of Science and Technology on St. Laurent Blvd. (south of the Queensway)

CHIEF BRIEF

Spring is finally in the air. Or at least it appears to be. I have a distinct feeling that we are still in for a massive cold snap just to demoralize us even more.

Those of you who are tuned in to "goings on" in the club are now aware that one of our students from the course is on the air. I am speaking of none other than Carl, VE3OMA who has been heard on various repeaters and simplex frequencies since getting his ticket.

While I'm on this trend-setting tangent I may as well cast in print some important history making events that have happened. One goes back a few years but the other happened a few nights ago. The latter was a new important development in the No-Name RTTY net. Yours truly passed the first ever piece of formal traffic on 110 baud ASCII Radio Teletype on repeater VE3TWO on Wednesday Feb. 22, 1984. This is the first of what may eventually become a trend on our innovative repeater. The other historical item that I was referring to was the fact that on May 13, 1984 the OVMRC Code Practice on the repeater will have been an institution for 3 years. Not even I realized it was that long until I was entering some net statistics into my computer and came across this massive note to myself that I wrote back in 1981. It sure has come a long way and will continue as long as I am able to keep it going.

With all of this innovation on my mind I may as well use this forum to describe a few of my feelings on the various modes which are available and increasingly present on VE3TWO. It has gotten back to the almighty President that there has been some unrest amongst fellow users of VE3TWO regarding the presence of RTTY on it. I realize that many do not have the facilities to decode the marks and spaces, but this should not be a reason to get upset. Radioteletype is not a new innovation. It has been around for many years. The only thing that is new is the way in which it is generated, by computer. Those of us who choose to make use of this mode which is legally available to us should be able to. It is a form of communication just like phone or CW and should be treated the same. The argument that those who wish to break in on phone on VE3TWO, while RTTY users are present, that they cannot because they won't be understood is incorrect. While RTTY is being sent or received, the repeater is usually being monitored by those of us in QSO. This allows us to be able to tell when the sending station has released his carrier. By the same token, we can also usually hear someone breaking in on phone just as they would if we were communicating on phone ourselves. So don't hesitate to break in if you wish to make a call. But please remember that RTTY ops deserve the same rights as non-RTTY ops. If we are in QSO, we don't mind breaks for others, but don't expect us to clear out as if phone stations take precedence. Neither RTTY, phone or CW or any other mode has precedence unless it is an emergency. This works the same way in the other direction. If persons are engaged in QSO on phone, RTTY types will have to go elsewhere unless it is an emergency. The only other "Gentlemen's Agreement" regarding all of this is during times of regular scheduled networks. These take precedence over regular chit chat. Although we must remember that emergencies must take precedence over all. If these factors

are agreed upon, then everyone, regardless of mode should be able to exist in harmony. The theory that RTTY doesn't belong on VHF is of course utter rubbish. RTTY can exist anywhere the DOC has stated that it may exist.

One of the most interesting things about Amateur Radio for me has been the variety of things that one can do. If we get tired of one mode of communication, we can experiment with another. The only thing you need is at least two participants to try and test theories. If we continue to close our eyes to change then we will have to also try to convince ourselves that the telephone, television and radio are really passing fads. If you can believe that they are passing fads then you probably are also convinced that RTTY is strictly for HF.

Change is not necessarily a bad thing. It is what you make of it that makes all the difference. It is human nature to reject something that has never been done before just like RTTY on our 2 metre repeater. Heaven Forbid!! If you don't like it, then don't like it but don't try to ruin things for those of us who still find something to keep our "grey matter" doing back flips.

I hope this will put an end to the unrest. Everyone is entitled to their own opinion and this is my own opinion and is not to be taken as club policy. RTTY on VE3TWO is no doubt here to stay as long as there are interested parties. I wouldn't be surprised if we see some other modes being experimented with on VE3TWO as well.

How's that for some really deep philosophy! See you at the March meeting.

Dave, VE3KLX
President

V.P. VIEWS

We are now into the second half of our club year. At the present time club membership stands at 98. With the second half of the year comes our half-price membership. Persons joining the club now can get a membership for five dollars. If you know of anyone who would like to become a member, now would be a good time to try us out at this reduced price.

Last month's computer night was quite a success. With the large turnout it is obvious that there is a lot of interest in computers and their use in amateur radio. This will, I am sure, become an annual event. There was enough material there to even support two computer nights a year!

Don't forget the club auction (yes, there will be an auction) and flea market coming up next month. So, get all your junk (I mean good stuff!) out and get ready to move it to someone else's basement.

Finally I would like to congratulate the two students who passed the amateur exam. Carl Devries VE3OMA and Dan Senior VE3OMM.

Pat Brewer
VE3KJQ

DON'T FORGET TO RENEW YOUR LICENCE.....

**** DUE TO LACK OF INTEREST, THE DAYTON TRIP HAS BEEN CANCELLED **

MINUTES OF THE OVMRC REGULAR MEETING - FEB 16/84

The meeting was called to order by the President at 2005 Hours.

The following guests were present: VE3MJY* Archie-: 3LOR* Art: 2DZQ*Joe: 3JRX*Ray: 3MSK*Bob: 3MJM*Graham: 3BCO*Mailes: 3JSP*Samson: 3JDB*Bob: 3JLG*Fred: 3HSI*Jack. The President welcomed the guests and invited them to come to future meetings.

The minutes of the previous meeting (Jan. 19/84) were approved after a correction of a typographical error, on a motion by 3NJI, seconded by 3 GOG.

Congratulations were extended to the first radio course member to report success at the recent DOC examination. VE3OMA* Carl has now joined the fraternity.

COMMITTEE REPORTS

PRESIDENT: Dave commented on the need for at least six mobiles and tree portables in support of an upcoming event on May 26. He also stressed the need for a coordinator for the RSO Convention "talk-in/out" activity, and a coordinator for the convention CW proficiency run. He further extended on behalf of 3FSN, an invitation for club members to join the BOAT ANCHOR RADIO FEDERATION (BARF) for which Life Membership dues are ONE CENT!!!

VICE PRESIDENT: Pat reported club membership at 93 members and holding. In accord with established practice, fees for the remaining half year are now \$5.00. Pat also reported that 10 students of the current radio course wrote the DOC examination (as reported above, one, VE3OMA, has already reported success). One of last years course members wrote the Advance Amateur examination.

TREASURER: Vance reported the current Book Balance as \$2767.33.

PUBLIC RELATIONS COORDINATOR: Allen reported on the developments in the reactivated Museum station VE3JW. Operator lists are filling up. He also commented on the favourable attitude of the museum officials towards further expanding the scope of the station, provided, of course, it is used.

TECHNICAL ADVISOR: Absent.

RAMBLER EDITOR: Jerry read a letter from one of the course students, expressing appreciation for the efforts of the course instructors.

TELECONFERENCE RADIO NET: President Dave requested an indication of the amount of interest in TRN and whether the membership wished to support the local efforts financially. VE3CDS moved that the sum of \$30.00 be given as a one-time donation to help support this activity. Seconded by VE30FM and approved by the members present.

AMATEUR RADIO COURSE INSTRUCTORS: Moved by VE3OAW, seconded by VE3NJI that the sum of \$400.00 be paid to VE3FSN to be distributed as an honorarium among the course instructors. Motion passed.

CRRL/ARRL: VE3CDS reported on behalf of VE3FN that the 1985 RSO Convention would be held in London, Ontario, under the auspices of CRRL. He also reported that DOC should soon be in a position to announce the withdrawal of LORAN from the 160 M band.

CARF: VE3ZS commented that the 160 M band changes are still with the Privy Council Office so "don't hold your breath". There will likely be some residual low power radio beacon signals on 160 M after the withdrawal of LORAN. In response to a question Art declined to speculate on the amount of next year's fee increase or on the possibility that it might be substantial.

RSO CONVENTION: VE3CDS encouraged the participation of OVMRC members in the convention activities.

Following the business session of the meeting, an interesting demonstration of computers was given by VE3JPC .. VE3KLX and VE3MJM.

The next executive meeting will be held February 23 at "O casa do Secretario", 1454 Woodward Ave. at 1930 hours.

THE MEETING ADJOURNED AT 2150 HOURS ON A MOTION BY VE3LNH, SECONDED BY VE3JKR.

Bob Campbell VE3KIK
Secretary

Spring has sprung,
The grass has rizz,
I wonder...

Where's the grass and what is that bloody white stuff!!!
Excuse me Senor but I understand that you are feeling the pre-spring blues. Have I got an idea to perk you up.

SECOND ANNUAL OVMRC MEXICAN BASH
(or Montazuma's revenge Mark II)
Saturday March 17 at 1900 hrs.
Las Palmas Mexican Restaurant
111 Parent (corner Murray)

Plan to attend what proved to be a very popular and fun event the last time around. Enjoy the authentic Mexican cuisine and entertainment at this fine establishment. All your favourites are here---tacos, burritos, nachos, enchilladas and a chocolate cake that will make you melt. For those of you with the stomach of a gringo, there are plenty of good selections that don't bite. So, if you plan to attend, let me know at 828-9235 home or 996-5919 work before March 14.

Russ
VE3FSN

P.S. There is plenty of free parking.
P.P.S. Prices are very reasonable.

LETTER TO THE EDITOR

It is February 8th and I have just written the D.O.C. exam for Amateur Radio operator's certificate and while waiting for the "good word" that will allow me to use my newly learned skills, I wish to express my sincere thanks to Russ VE3FSN, Mike VE3LAR and Pat VE3KJQ for spending so much of their time to advance the cause of Amateur Radio and getting our class ready for their exams.

The course was a good one and enjoyed by us students.

Carl VE3OMA

Editor's note; We added Carl's call--- Congratulations..

TO OUR STUDENTS

As you probably know from reading the Rambler last month, ten of you wrote the amateur exam. One of our students from last year wrote the advanced exam. So far we have only heard from five of you. If you are one of the other five please contact Russ, Mike, or myself and let us know how you did. We also want to know your impressions of the exam and what you thought of the course in general. Without this information it is difficult for us to know how we are doing and how we can improve the course.

If you didn't pass, DON'T GIVE UP! Many of us didn't make it the first time either, myself included. Remember that the DOC doesn't hold it against you. Just go back and try it next time. You can write the code portion of the exam every month. The next theory exam is April 18, 1984. You should try again then. You must let them know now (one month before the exam date) that you wish to write. You should be studying NOW. You should NEVER HAVE STOPPED working on the code. You will only improve your code speed if you spend some time on it every day. Working on it once a week just doesn't work.

The regulations portion of the exam is just a matter of knowing RTC-25 very well. You don't need to memorize those frequency tables, but you do need to have some idea what the bands are and where the band edges are. Don't forget to go over the "Q" codes. There are usually about five questions on them on the exam. They are listed with explanations in the back of the Radio Regulations Handbook that you were all given at the beginning of the year.

The theory portion of the exam is much harder than the regs portion. Try going over the homework and test questions. If there are things you can't answer, especially in the material from the beginning of the course, start reading. Try using another text such as the CRRL Study Guide, The Radio Amateur's Handbook, or Understanding Amateur Radio. These books are all listed in the handout you got when you registered for the course. They may explain things in a different way that you will be able to grasp easier. If you get stuck, call us. We still want to help. If we can't help you, we will find someone who can.

The bottom line is still, DON'T GIVE UP! It may take some time, but YOU CAN DO IT! Finally, let us know how you do. It does wonders for our ego when you pass. GOOD LUCK!

Pat Brewer
VE3KJQ

NOTICE OF MEETING

The next regular meeting of the Ottawa Valley Mobile Radio Club will be held on Mar. 15 at 2000 hrs at the Museum of Science and Technology. Our speaker for the evening will be Ray Perrin, VE3FN. Ray will talk on the activities of the CRRL amongst other things.....See you There.

AUSTION SPRING 1984

DON'T FORGET OUR ANNUAL SPRING AUCTION AND FLEA MARKET ON APRIL 14 AT CANTERBURY HIGH SCHOOL.

BOAT ANCHOR RADIO FEDERATION

What or who exactly is the Boat Anchor Radio Federation? Well, BARF is basically a group of amateurs with an interest in operating 70cm. FM in the Ottawa area. It began in early 1977 when a number of Lenkurt commercial low capacity radio systems became available on the surplus market. A number of local amateurs noted the lack of significant interest and operation in the 70cm. band and decided to take a chance on these units and place a repeater on the air.

Why the Boat Anchor Federation? Actually the choice of name is not as trivial as it may appear at first sight. Most of the equipment being used on this band at the time was tube gear and at best hybrid (tube/transistor) gear. Reference is often made in amateur circles of "boat anchors", referring to radio equipment that is definitely showing it's age. In many cases, it has been jokingly stated that it's only value in life was as a boat anchor. Considering the equipment we were using, a perfect choice as a club name.

Although a repeater was put on the air, it became obvious rather quickly that when a commercial service junks equipment, that is normally exactly what it is. It appeared that half of the time the equipment was down for servicing. In addition, no one had realized that the type of service the equipment was designed for required wide bandwidth IF8s in the receiver, 50 - 100 kHz., and therefore resulted in a lack of both sensitivity and selectivity.

The equipment being used as base stations was also commercial surplus, in this case Motorola MOCOM 30 mobile radios. These proved to be more serviceable and were soon on the air.

The problems with the Lenkurt radios continued, resulting in the decision to strip one of the Motorola radios and use it as the repeater receiver. The transmitter was a hybrid design and was not considered suitable. A Hamtronics exciter was therefore purchased for the repeater. This repeater configuration was on the air for some time from my QTH.

Once again, the inherent problems in surplus equipment began to manifest themselves. Although the exact cause was never pinpointed, the received audio had an odd sounding characteristic to it. Off to Hamtronics one more time, this time to purchase a new receiver. The specifications on the receiver are fairly impressive and it is expected to provide excellent results.

This is basically where VE3YOW stands at the present time. The transmitter/receiver boards and control circuitry has been assembled. A location has been secured in Ottawa and it is expected that the repeater will be in place by late March. For those interested in operating 70cm., VE3YOW operates on 449.1 MHz. (input) and 444.1 MHz. (output).

At the present time, the repeater will be strictly a voice only machine with no features. It is hoped that in the near future an autopatch facility and possibly linking with VE3TWO (2m OVMRC repeater) will be accomplished. Much of this depends on the availability of funds, as the project is being funded by me at this time and costs are rising at a rather alarming rate. At present, the system is passing the \$600.00 mark in expenses.

Now if I have succeeded in wetting your appetite and you wish to join the Boat Anchor Federation, here are the details.

Boat Anchor Radio Federation
c/o Russ Pastuch VE3FSN
47 Cymbeline Drive
Nepean, Ontario
K2H 7X9

Dues are a one time assessment and set at 1 cent. This amount was selected so that members of BARF could not claim to have put their two cents worth in. Seriously, although dues are low, we gratefully accept donations to offset some of the cost of the repeater. Meetings are held at irregular intervals and we prefer to remain a loose group of amateurs with a common interest.

Russ Pastuch
VE3FSN
President BARF

QUA VE3OAO

a, an and the: How are those for three fine articles? I was only supposed to write one for this month's OVMRC Rambler, and I've already tripled the requirement! Well that should make up for the months that I missed getting articles in for printing in the other issues of the Rambler.

As of the date line that this is being written, I lack only a week to complete my first year of holding an amateur radio license. I've decided to briefly look back upon this year's events since passing my DOC tests. It will be brief as my articles go, because I haven't really accomplished too much.

Although I had previous training in Morse Code, I had trouble with it and had to take that part of the test twice. True the room acoustics in the location of the first examination were terrible, but I was having a terrible time justifying the need to learn the code. The change from hearing code at 10 WPM with 15 WPM characters (10/15) to hearing 10/10 was also a shock and I hadn't fully recovered by the first test. I built one of those memory keyers to practice copying 10/10 and higher speeds because my routine didn't permit me to listen to code practice sent on VE3TWO or WLAW. The extra code tapes the "Group of Five" made last year helped, but I hate random code groups..... Anyway.....

Russ Pastuch advised the students last year to no get on 2m and let their morse code slip away after they got their licenses. But that is pretty well what I did..... Never-the-less it has been picking up lately...

Fortunately, I heard about a HF rig for sale after an OARC meeting one night and got in contact with George NJN and took it off his hands. I studied antenna hand books for months on which antenna to build. I figured out how to put one in my attic and bought all the materials to do it. But when I was telling Bill OAI about this one night, he told me about a window antenna his Dad had loaned him that he would be glad to loan me until I got something else. So with that and the rig and the dummy load, filters, meters, coax and connectors, I finally got out one night on 40m to another novice, who's QTH was Basco, Illinois. I also practiced with Bill OAI on 40m a few times.

During our auction, last spring, I bought the 2m HT from one of the commercial vendors. That took up a lot of my time learning how to use it. Everyone on the repeaters were helpful as I experimented. Briefly, I ran the base station for the "Metres for Millions" las year as the event drew to a close. I operated the club HF station VE3RAM for about an hour during the Field Day at Carp, Ont., and that was exciting. It was revealing to see how much could be done with simple dipoles.

During my vacation last summer, I brought the 2m HT along and used it from time to time when I was in the vicinity of a big city and had a few interesting QSOs as we drove through New York State, Pennsylvania, Ohio, Indiana, Illinois, Missouri, Kansas, Colorado, Wyoming, South Dakota, Minnesota, Wisconsin, Michigan and back to Ontario. In Denver, I bought a gutter-mounted 5/8 wave whip antenna and a 2m linear amplifier but didn't get these installed and into use until while we were visiting my brother-in-law, Bob N7BVX, who had the tools and the know-how to complete the job. He also gave me the frequencies of repeaters that I would be near as I headed back East. I certainly did have a great deal more range as a result of that installation. More recently, on that foggy warm evening of Tuesday, February 14, I had several conversations with different Hams in Ontario and New York State through that repeater in Barnes Corners, NY, commonly referred to as the Watertown Repeater. One man was talking to me from East Syracuse, NY, while I was driving through "intermod-alley" in downtown Ottawa, on the Queensway! This is a distance of 160 air miles or 257 Km.

Finally, I am looking forward to being in the "drivers-seat" at VE3JW tomorrow afternoon at the National Museum of Science and Technology with the able help of Fred BAJ. I have visited the station during operation a number of times before, only once being invited to sit behind the counter with the Operator Stan GYP, who was unofficially my mentor at times last year during my studies.

In retrospect, this year has been another year of training. I owe most of what I've learned about this hobby from the volunteer work of individuals who enjoy their hobby and want to share it with others. Also, becoming a member of the Executive has been a learning experience and I thank those who have helped me get settled into my position as the OVMRC Accounting Officer.

Vance Johnson VE3OAO
Treasurer

VE3JW

This article will be short, because I've only got a little while before Jerry takes it away.

The museum station is up and running again, with thanks to the many operators who have volunteered so far. I hope that the level of interest remains high.

Operators are still needed - especially for the Saturdays in late March. If you can spare an afternoon please give me a call. Also, if you'd like a regular monthly or weekly spot we won't turn you down.

Once again operators are asked to leave their comments and suggestions in the log book. They are being noted and (I hope) will be acted on. So far, we are trying for better printed instructions,

better lighting, more comfortable chairs, a sign, and a QSL display. (Have I missed anything?)

Finally, all amateurs are invited to contribute to the running of VE3JW. A working committee is being set up to co-ordinate activities, and everyone is encouraged to join. We need HF specialists, operators, and people just to help tune the antennas. We hope to convince the museum people of our sincerity by the sheer number of volunteers!

The committee will meet for the first time later this month. For information call Alan VE3LNH at 722-8130 or Ted VE3KEH at 824-7826 (nights) or 998-4566 (days), and listen on the Monday night net.

Here is the current schedule:

Sat. Mar 10	Dave VE3GOG & Tom VE3OFW
Sun. Mar 11	Bruce VE3MJV & Bob VE3MSK
Sat. Mar 17	Open
Sun. Mar 18	Brett VE3JLG
Sat. Mar 24	Open
Sun. Mar 25	Bob VE3JDB & Bob VE3MPG
Remainder	Open

Alan VE3LNH

AMATEUR RADIO COURSE REVIEW (or how I spent my Tuesdays)

For the second year, the degenerates responsible for the Amateur Radio Course managed to keep sane long enough to complete the course. The course ended on the 7 February after what seemed like an incredibly long period of 20 weeks. It was encouraging to see 11 people at the Old Exam Hall, 10 writing their Amateur and one writing the advanced. This was a higher ratio of those writing the exam to those starting the course than we had last year. Not that they had much choice, when I handed the application forms out and commanded that they "fill and sign". I must admit that I had a lot of fun this year and I will not deny that it was due in part to the three lovlies we had in the class. Lovlies!!! What lovlies? Ah ha, you were all given the chance to be mentors. Well maybe next year when I ask for help. The students seemed to show more interest this year and seemed to grasp some of the concepts quicker. However, some ideas still didn't seem to make much sense even the tenth time through. When questions were asked, there were times, however, that even I tap-danced around the answer. It's amazing how you think you know the "why", until it's asked from left field, in a way that you never thought of before.

We experienced the rapid attrition rate expected in the first couple of weeks. Students still don't realise the amount of work involved in getting their licence, despite the dismal picture painted the night they registered. The only real problem with the theory centres around the simple fact that there is too much to learn in too little time. If an additional two or three weeks could be won from the DOC, it would allow some of the topics to be spread out slightly and more practical aspects of the hobby to be included. As it was, a number of us got together at the Museum of Science and Technology station on a Saturday for a

hands-on session. The morse code teaching seemed to go much better this year. Mike and Pat pushed more at the beginning of the course so that the students had more practice at the higher speeds before going in to take the exam. This definitely showed in the student's confidence as the exam approached.

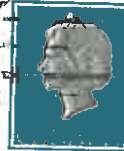
To sum up course results, as of today, I know of at least two new members of the amateur fraternity. There should be at least three or four more who should get there licences over the next few months. This should result in a total of five or six new amateurs resulting from the course, a very good number.

Again? As far as I am concerned, definitely! As long as it's fun and people pass the exam, I will keep teaching. Now as far as an Advanced Amateur course, that one is under investigation. After seeing the amount of work that went into preparing the Amateur course, I can't say I am all that eager to tackle the same amount of work quite this soon. Maybe let the present course run for one more year and then see how I feel.

Finally, I would like to thank those who helped me make this happen--Mike VE3LAR, Pat VE3KJQ, Dave VE3KLX and the mentors who kept the students off our backs--Ed Wiggs, Cliff Moffett and all those I missed. I would like especially to thank the students, without whom this would have been very boring.

Russ Pastuch
VE3FSN
Course Coordinator

OVMRC
P.O. Box 5530 Stn F
Ottawa, Ontario
K2C 3M1



FIRST CLASS

FIRST CLASS

JIM HAMILTON VE3GJY
2038 ARCH ST.
OTTAWA ONT.
K1G 2H1