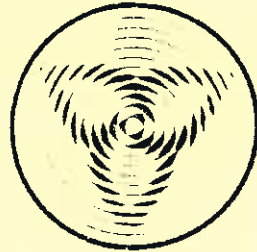
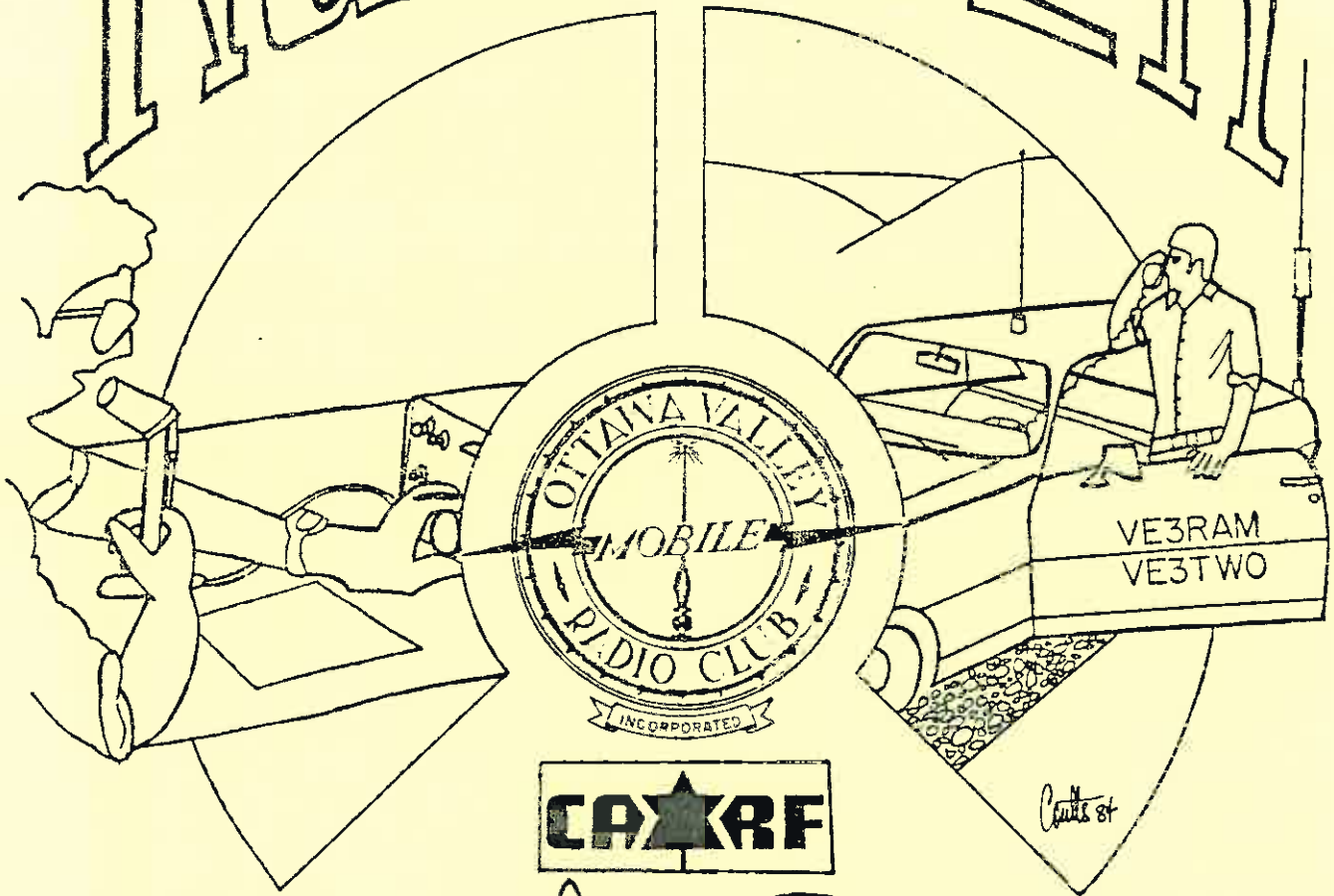


RAMBLER



NEXT MEETING:

MAR 19, 1957

COME SEE THE LATEST - BILL WESTBROOK ON SSTV

THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED

1986-1987 EXECUTIVE

PRESIDENT	Vance Johnson	VE3OAO	824-9555
VICE PRESIDENT	Bill Seyler	VE3OAI	836-5818
SECRETARY	Kris Anderson	VE3OWE	225-4152
TECHNICAL ADVISOR	Alan Boyce	VE3INH	737-4937
PUBLIC RELATIONS	Bob Brown	VE3JDB	729-6440
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PAST PRESIDENT	Bob Campbell	VE3KLK	729-7536
EDITOR	Jerry Wells	VE3CDS	225-7374
MEMBERSHIP	Pat Brewer	VE3KJQ	820-9309

CLUB SPONSORED ACTIVITIES

POT HOLE NET - OVMRC Net - Every Sunday, 1000 local time on 3760 kHz. SSD. All radio amateurs are welcome to participate.

THE WISE OWL NET - OVMRC Net - Ragchew net every Friday evening at 2000 local time on the club repeater VE3TWO - 147.30/90 MHz.

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. For information or if you wish to operate the station, contact the Public Relations Coordinator.

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 1100 hrs on 3620 kHz, to provide and stimulate interest and proficiency in CW procedures.

CAPITOL CITY FM NET - Sponsored by the Ottawa Amateur Radio Club Inc. every Monday evening at 2000 hrs local time. Conducted on VE2CRA repeater 146.94/146.34.

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

THE MILITARY NET - Sponsored and conducted by Frank, VE3MSC, Tuesday at 2000 hrs on VE3TWO 147.30/147.90 MHz.

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 2000 hrs unless otherwise posted. Meetings normally take place in the auditorium of the Museum of Technology on St. Laurent Blvd (south of the Queensway)

The OVMRC provides code practice 24 hours a day. Dial 825-0786.

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QUA VE3OAO

O.V.M.R.C.
Administrative
Officer

CQ to all OVMRC members, The Wise Owlers and interested Rambler observers...

Welcome to the Rambler Volume 30, Number 3.

Our next meeting will be at the National Museum of Science & Technology (as usual), St. Laurent Blvd and Russel Road, at 2000 Hrs Local time on March 19th. Our guest speaker that evening will be Bill Westbrook VE3EKA who will be telling and demonstrating to us about Slow-Scan Amateur Television (SSTV).

On April 4th, we will be having our Spring Flea Market at Canterbury H.S. in Ottawa, from 0900 to 1500. We will probably be having a talk-in on our 2m repeater VE3TWO 147.30/90 MHz to help guide anyone to this event that is unfamiliar with how to locate this address. Members who are familiar with this annual event will probably notice that it is two weeks earlier than it usually is, thanks to the variable feast of Easter occurring on our usual week-end. Our first preference was to have it on May 2nd, but the high school already had a reservation for that date. Other Ham Radio events are on the other Saturdays in between these dates. So the event will be 16 days after our March general meeting.

For the recent entrants into this grand hobby, the Spring Flea Market is the place to go to shop for new and used amateur radio equipment and supplies, have an "eye-ball" visit with other Ham's from

other clubs and places or to talk to representatives from other amateur radio organizations such as CARF and the CRRL. There are usually commercial exhibitors demonstrating their latest product. And don't forget to have a soft drink or a cup of coffee and some donuts....We always have a raffle too, so remember to keep your time reserved to come to the OVMRC Flea Market on April 4th. The Annual Banquet was successful with 33 people enjoying the fine fare. We acknowledge the contributions by the following in making the Rambler a success: Jerry VE3CDS our Editor who puts it all together; Bob VE3KLG who gives us the Computer Tips column; Kris VE3OWE for his easily digested Minutes from previous meetings; Pat VE3KJQ for his notes on the growth of our membership and reports on student progress from the OVMRC Radio School; Russ VE3FSN for his articles "The Leading Edge" and "The Weekender". Probably the most copied article in the Rambler. And of course the efforts of Russ VE3FSN, Pat VE3KJQ and Kathy VE3OWY for printing the Rambler and getting it into the mail. Dave VE3KLX for his YYB Report as our foreign correspondent and Bill VE3OAI for his witty columns on his owl and day dreaming on winning the lotto.

Vance VE3OAO
President



MINUTES OF FEBRUARY MEETING
OVMRC

The meeting was opened at 2010 by president Vance VE3OAO who welcomed the 40 or more in attendance including a guest who expressed an interest in learning about amateur radio. WELCOME ABOARD! Two minor errors were noted in the January minutes. The day of the annual banquet was shown as Friday instead of Saturday Feb 21, and in reference to Fred Green's (VE3IO) presentation it was on electric transportation not elective. Subject to correction the minutes for the January meeting were approved. President Vance reminded those present that the annual banquet is on Saturday at the sergeants pump on Merivale road. We will start at approximately 1900. There will be door prizes for both men and women.

A date for the flea market was discussed and on the basis of a vote, May 2nd was first choice with April 4th as the alternate date. This avoids conflict with the Montreal flea market April 11th and with the Dayton Hamvention April 24 - 26th as well as the Easter weekend. Jerry VE3CDS will find out about the availability of the school where the flea market is held. Merv VE3CV recommended that we should also advise the Smith Falls Club of the date when it is finalized so they can coordinate their flea market accordingly.

President Vance had two messages from Fred VE3BAJ to pass on. Frank VE3MSC Net Controller for the Military Net would like the technical portion of the meeting to be broadcast as a QSO on VE3TWO.

This was put over to the Executive meeting for discussion. The second comment was that licensed amateurs should carry a copy of their station license with them, particularly if using a handheld or mobile rig. The RCMP questioned a Manitoba amateur who was using a handheld at the side of the road and asked to see his radio license. Field Day will likely be the weekend of June 27th. President Vance indicated that there is a need to start organizing now if we intend to hold one and requested anyone who is interested in serving on the committee to contact him. Last year's site was rather crowded and suffered from interference and it was suggested that the front lawn at the Museum would be a better place if it is available. Bill Wilson VE3NR commented on an article in QST May 84 concerning the use of toroids to eliminate TVI. This article shows a diagram where the toroid is connected in series with the ground lead. This presents a hazard if there is a lightning or power surge, since the toroid will present a high impedance to the surge current. A safer alternative is to use a tuned loop coupled to the ground lead and tuned to the frequency of the interfering TV station. Bill VE3NR showed a sample loop.

EXECUTIVE REPORTS

Vice President Bill VE3OAI reported that VE3JLO, Larry Blais is a silent key. He thanked Art VE3ZS for inviting him to participate in a mock disaster exercise at Arnprior where an aircraft crash was simulated. He found the



exercise very worthwhile as a learning experience for handling communications under emergency conditions. Membership Chairman Pat VE3KJQ reported that there are 141 paid members and the club is now offering memberships for \$5.00 for the balance of the club fiscal year. The training course is completed for another year. Six of nine candidates wrote the exam but no results are available yet. The new DOC regulation allowing the code test to be given by advanced amateurs and attested to, has helped with the course. Four students had qualified by Christmas. The examinations are now multiple choice questions and there have been complaints that some questions are ambiguous and no clear cut answer can be given. After some discussion, Art VE3ZS recommended that those concerned should contact CARF and CRRL to request their help in contacting DOC to get one answer to these concerns rather than getting several different ones from various levels of the DOC organization. Those who are interested in taking the code exam should contact Pat VE3KJQ ahead of time to make arrangements. This can be done through the year. Art VE3ZS commented that DOC are planning to eliminate the four exams per year and that the local offices will be able to schedule them to suit the demand. Ray VE3FN reported for CRRL that the Radio Advisory Board of Canada is processing a letter ballot that will recommend that the Minister change the Radio Act to introduce regulations requiring manufacturers to repair equipment that malfunctions as a result of

radio interference and to set standards for susceptibility. He mentioned a visit by members of the Japanese Amateur Radio League. He also mentioned that Ralph Cameron VE3BBM had been presented with a commemorative tray as CRRL Amateur of the Year in recognition of his distinguished service to amateur radio including the establishment of the Jack Ravenscroft fund and his continuing support in this area.

Merv VE3CV commented that VE3YK in Florida sends his thanks for the Rambler which he enjoys very much. The "Guides on the Air", Feb. 20-22 will encourage Girl Guides to communicate via Amateur Radio. The RSO has a new magazine. There will be an RSO convention at the Packet Symposium in Barrie next fall. Merv also noted that in looking for suitable antenna insulators he found that the plastic chain at Pascals (65 cents per foot) is well suited.

President Vance announced that the next meeting will be on March 19th. The guest speaker will be Bill Westbrook VE3EKA who will speak on slow scan TV. The executive meeting will be held at Bob's VE3OSN QTH on Feb 24th at 19:30.

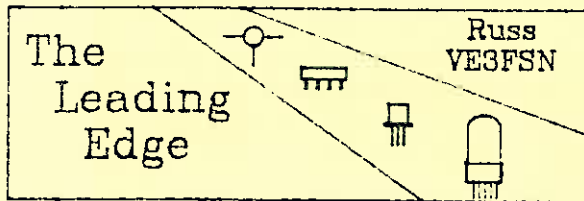
Dick Atkinson VE3JBO/VE3RDA was introduced by Kris VE3OWE. Dick is chairman of the OARC Packet Radio Group and agreed on short notice to give a talk on Packet Radio since Wayne Getchell who was to be the guest speaker was called away on business unexpectedly. Dick gave a comprehensive overview of Packet Radio and described briefly the activities of the Ottawa Packet Radio Group. They meet

7 GOTT



every two months on the last Wednesday of the month. There are about 60 local packet stations. Dick was assisted by Chris VE3PAE who set up his portable packet station as a demonstration. The presentation was well received and it is evident that there is a lot of interest in this new communication mode. At Dick's suggestion, the meeting adjourned at 22:10 for coffee and an opportunity to examine the packet demonstration. We wish Dick well in his endeavours and hope to have him back again for another talk on this interesting topic.

Kris VE3OWE
Secretary



A new method of large scale integration is about to leave the laboratory stage. Wafer scale integration takes an entire silicon wafer, produces semiconductor chips on it and then rather than cutting the wafer into individual devices, connects the chips on the silicon wafer. A prototype device containing a 500K-byte memory was assembled on a 4 inch wafer. To get around flaws in the wafer, an initialization program sends a signal into the first node on the wafer, this node then attempts to establish a connection with it's neighbours, who then

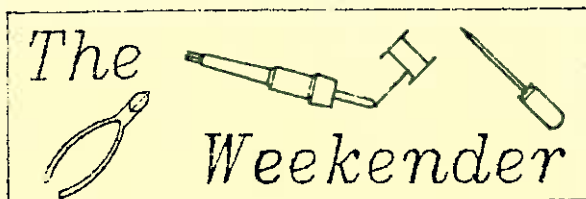
attempt connection with their neighbours. Eventually all the fully functional nodes are connected into a single snake-like path. The program then stores a map of this path. The individual RAM arrays associated with these nodes are then tested. Typically up to 30 percent of a wafer is defective so that for example, a 10 megabyte wafer will result in a 7 megabyte memory device.

Exabyte Corp. claims that their EXB-8200 tape cartridge system can store and retrieve up to 2,300 megabytes of information on a 8-mm videotape cassette. The system has an error rate of less than one for each 10E13 bits read and is expected to sell to manufacturers for less than \$1000 US.

Scientists at the Chinese Academy of Sciences in Beijing announce that they have succeeded in developing a material that attains superconductivity at 70 K. At that temperature, superconducting techniques would be far less expensive to implement and could lead to wide spread use in telecommunications, transportation and power transmission.

Scientists at the Naval Research Laboratory have fabricated FETs in thin films of silicon carbide. Experimental diodes constructed on the same material have continued to rectify at temperatures of at least 700 deg C.





Now that you have successfully passed the DOC exam and obtained a call sign, your major desire is to get on the air. Equipment costs tend to eat up the majority of funds allocated to setting up a station, leaving next to nothing for that nice tri-band beam you had planned on. While not the equal of a beam, the multi-band antenna presented in this month's Weekender works well and best of all, is extremely cheap to build.

Theory

The basic antenna used in radio work is the dipole, this being little more than a half wave length of wire fed at the centre. While it works well, it is a single band antenna due to it's resonant nature. But, there is nothing that says we cannot parallel a number of dipoles, each cut to a different frequency and fed by the same piece of coaxial line. The radiators for the bands not being used represent an impedance of several hundred ohms, and do not affect the dipole being used.

The result is a multi-band antenna, with a feedpoint impedance approximately the same as for a single dipole, 50 to 75 ohms. It requires only one feedline and a minimum number of supports.

Construction

The antenna elements are built out of a length of

either 5-conductor rotator cable (Radio Shack #15-1201) or 3-conductor rotator cable (Radio Shack #15-1150). The individual dipole elements are not separated from the cable, only the excess is cut and removed.

The cable is not long enough for an 80 metre dipole and thus you use a length of scrap wire, left after cutting the 40 through 10 metre dipoles to length, to extend the 80 metre dipole to the required length. I suggest that you tape the end of each dipole element to prevent the individual elements from possibly separating from each other.

There are many ways that the dipole elements may be connected at the feed point. You may decide to use a connector mounted on a scrap piece of plastic, as I did, or simply solder the feeder to the elements. If you elect to solder the feeder to the elements, again use either a scrap piece of plastic or other insulator to break the two halves of the dipole. I suppose that in a real pinch you could buy a real insulator, but that costs real money! Whatever you chose, use plenty of silicone rubber, tape and acrylic spray to waterproof the assembly. It is vital that water not get into the coaxial cable in order to prevent deterioration of the cable.

Due to the frequency relationship between the 40 and 15 metre bands, it is not necessary to have a separate 15 metre dipole. The 40 metre dipole will act as a 3/2 wave antenna for 15 metres.

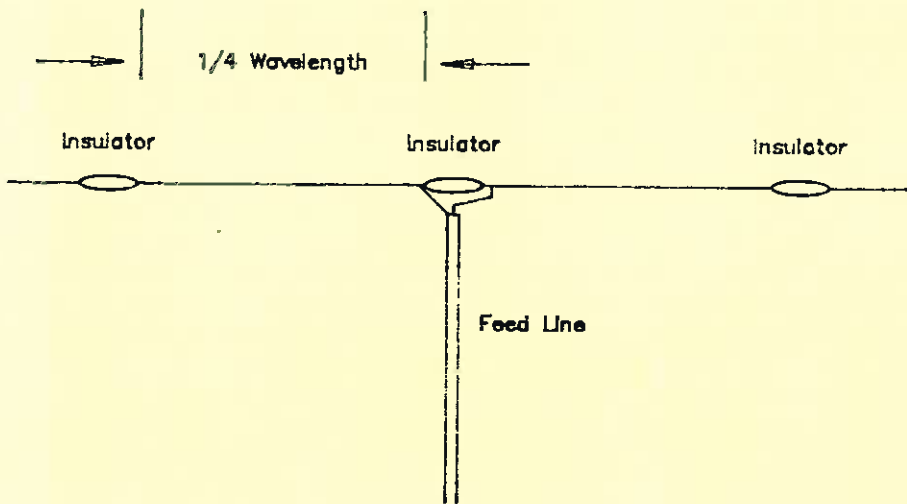


Installation/Adjustment

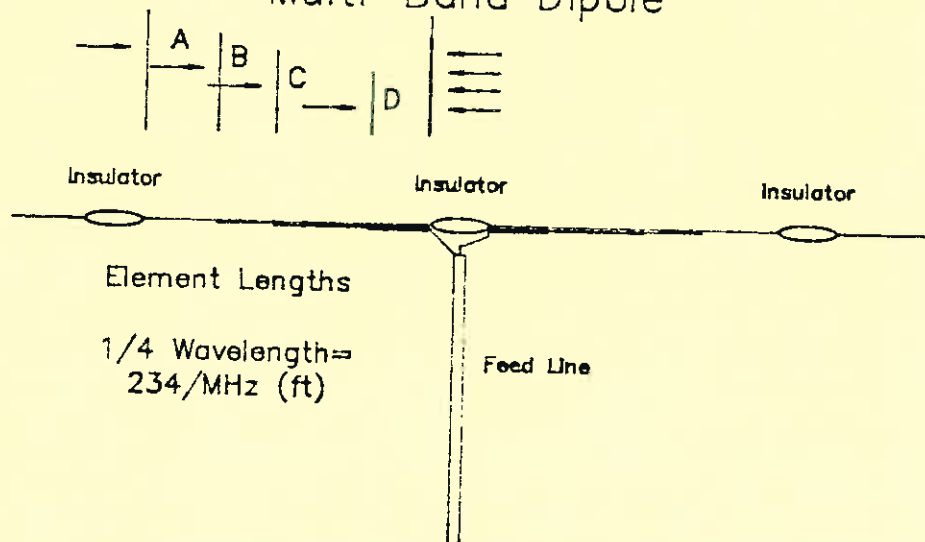
The antenna may be installed as either a horizontal dipole or as an inverted vee. The horizontal dipole tends to have better performance but requires three supports and is bidirectional in radiation pattern. The

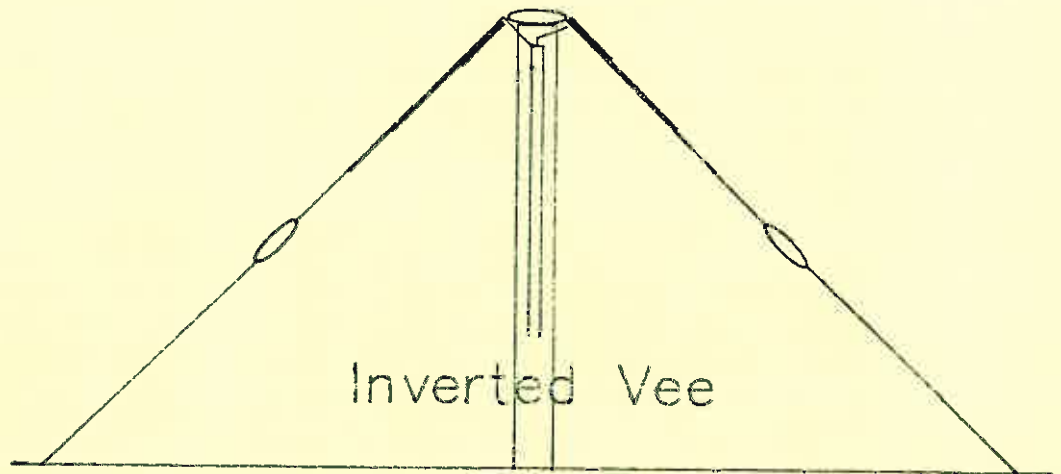
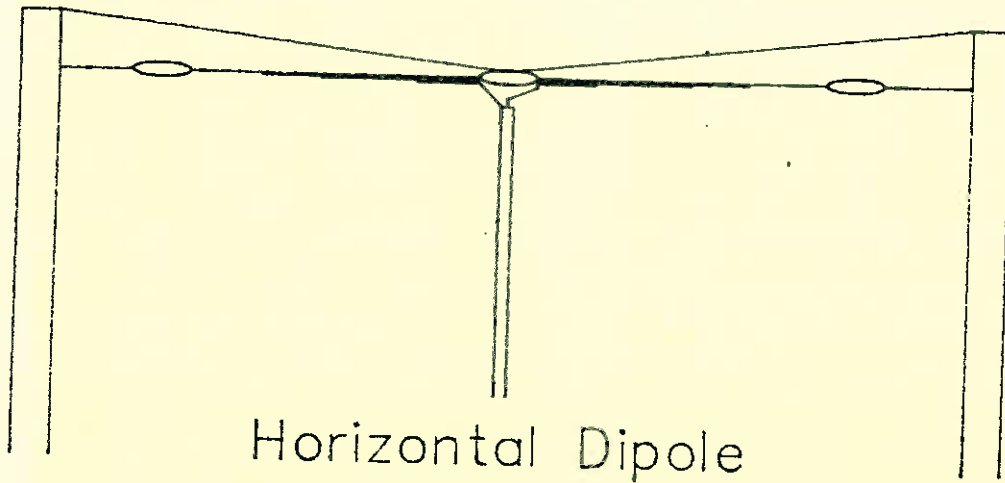
inverted vee requires only one tall support and tends to have an omni-directional radiation pattern. The exact choice is a personal one, dictated more by available real estate than anything. Do not try to get by without supporting the centre of the dipole. The combined weight of the antenna, feeder and extra loading caused by a layer of ice or snow will quickly bring the entire assembly to the ground.

Basic Dipole



Multi-Band Dipole





As the length of the elements is affected by antenna height above ground, whether the antenna is installed as a horizontal dipole or inverted vee, etc. it will necessary to install the antenna and then individually prune each element using your transmitter and an SWR bridge.

Conclusion

I hope that you try this antenna, it does work. I successfully used it for a number of years on top of the roof of 28 story apartment building and it never did come down.



COMPUTER TIPS FOR C-64

by
VE3 KLK

Each issue of RAMBLER contains a few hints & tips concerning the C-64 Computer. Any ideas found by readers, that they would like to pass on, will be welcomed and included in future issues.

TIP #1. When modifying a program, for instance, to add some data, as a permanent item, have you ever typed over a program line by mistake, or perhaps changed your mind before entering it? If you have, then you will be familiar with that sinking feeling in the pit of the stomach, when you try to recall what the original line looked like before you destroyed it.

DON'T PANIC - In this case, relief is spelled "SHIFTED RETURN". Press the SHIFT and RETURN keys together and then LIST the line again. It will return in its original form.

TIP #2. If you have not tried much programming, you may be a bit concerned at one of the instructions in our on-going "Mystery Program". Instruction #4 says, 'Type next series of lines'. To some, this conjures up the picture of, each month, retyping

whatever has gone before in order to insert the new series of lines. NOT SO! When you comply with instruction #3 which asks that you LOAD and LIST, you will have transferred, from the tape or disk, whatever you have previously saved, and placed it into the computer's memory.

Each line has its own discreet number and the computer recognizes this. So, having LISTed whatever you have already saved, to the screen, you can continue to enter more material.

Move the cursor DOWN to a clear space (or if you prefer - to the bottom line) and start entering the new lines. After typing and checking each new line - hit RETURN and continue with the next line. If you are working at the bottom of the display, you will see that the display scrolls up to make room for the next addition.

Continue carefully until you have all the new lines entered. Then type LIST. When the screen stops scrolling, you will see all your new lines neatly inserted in their proper numerical order.

see next page

```

15 REM * REVISION OF OCTOBER '86*
16 REM *****
50 IFN=0THEN GOTO120
110 IFN>0THEN GOTO50
125 IF A$="Y"THEN 40
390 PRINT"                                YOUR NAME"
409 PRINT" | | | | |"
410 PRINT" | | | | |"
430 PRINT"
505 S$=Z$+S$:S$=RIGHT$(S$,5):RETURN

```



SAVE the new display to Tape or Disk and wait for next month's addition.

So, following the directions in February's RAMBLER, you can now enter the March material, given below.

The following article was received from Jack, VE3SR.

THE PASSAGE OF TIME

A Civil Court order, issued by one Judge Doyle in the Ottawa District Court on 25 July, 1985, temporarily but effectively, put VE3SR off the air.

This ruling was upheld by Judge W T Hollinger on 7 April 1986, who for good measure, imposed a fine of \$2,558.00, bearing an interest rate of 13% per annum commencing December 1984.

VE3SR now has the dubious distinction of being the first federally licenced amateur radio station deemed to be a public nuisance by a court of law.

It had now cost the amateur fraternity and numerous support groups nearly \$20,000.00 to learn, that under certain circumstances, transmitter operators could now be classified as nuisances in a Canadian civil court.

The precedent had been set.

The change this ruling, the only option open was the Ontario Court of Appeal. This was a very difficult decision, our coffers were dangerously low and the responsibility

somewhat awesome. This is a very costly business both monetarily and emotionally. We proceeded on faith; you have not let us down.

In retrospect it is ironically amusing that when my original lawyer was asked, in his opinion, what the probable cost of this case would be, he suggested a figure of \$1,400.00 at the outside, perhaps \$5,000.00 if we had to go to trial.

By the time this appears in print, it is estimated that between \$40,000.00 and \$45,000.00 will have been expended on legal fees alone.

Imagine, with co-operation and common sense instead of vindictiveness, this problem could have been resolved for less than \$200.00.

To those who remain skeptical, we tried, we tried very hard. Given the opportunity we will try again.

Many of you may not know that during the trial of January 1986, the court saw fit to impound my radio licence and my station logs (dating back several years from 24 July 1985, my last date of operation.) I questioned the Judge about this and he flippantly said "Oh I imagine you will be able to get them back in 3 or 4 years." Perhaps he was being prophetic. My lawyer had previously advised me that if I submitted these articles I should have them back in a few weeks at most.

If anyone is waiting for a VE3SR QSL, please don't hold your breath.



At heart I have always been a long distance communicator (check the record). Consider my utter frustration when during the latter part of January 1987, Peter Island (3Y2GV and 3Y1EE) appeared on the scene. This was to be country number 360 and logically the last sticker possible on my DXCCH certificate.

It was inhuman to hear my arch rivals acquiring contacts one - by one, I could only listen; DX-ers will understand.

Our sincere thanks go to those who have assisted us, not only monetarily but also by necessary communication. And not only to Canadians; we extend our thanks to the United States, England and many other countries, some as remote as Papua New Guinea, who have been most generous.

We have come a long way with encouraging results, however, we still need your continuing support - the passage of time takes its toll...

John Ravenscroft
VE3SR

Once again the OVMRC's amateur radio course has come to an end. The teaching, answering, cajoling, threatening and pleading have come to an end. The only thing to be done now is to congratulate the winners and console the losers. Again it was a very good year and I see no reason why at least a half dozen should not make the exhalted rank of radio amateur, second class.

It has hardly finished and we look forward to the sixth annual course in the fall. I would like to get copies of any code practice programs that you may have. With the number of computers, around now-a-days, a code practice program could come in handy for that much needed practice.

I would like to thank those who gave so willingly of their time. Many thanks to Pat, Brice and Jim for a job well-done.

Russ VE3FSN

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MARK THE DATE

APRIL 4, 1987

CANTERBURY HIGH SCHOOL
OVMRC FLEA MARKET
Doors open at 0900 for those wishing to buy. Doors open at 0800 for those setting up tables.
This year there is NO SMOKING allowed in the school.
See you there...



CRRL NEWS

Members of RABC, The Radio Advisory Board of Canada, are currently voting on a set of recommendations which, if implemented, would have the Minister of Communications assume responsibility for the RF susceptibility of non-radio electronic equipment, and have the Minister make regulations that would force manufacturers of non-radio electronic equipment to repair or replace such equipment, without charge, should that equipment malfunction in an RF field. The recommendations were prompted by concern over the Jack Ravenscroft case. At least two members of RABC, CRRL and CARF, will be voting in favour.

Effective March 21, U.S. Novice- and Technician-class amateurs will be able to use digital modes on 28.1-28.3 MHz, and radiotelephone on 28.3-28.5 MHz. Novice-class amateurs will be able to use all modes, 25 watts maximum output, on 222.1 - 223.91 MHz, and all modes, 5 watts maximum output, on 1270-1295 MHz. The package of new privileges, called Novice Enhancement, was originally proposed by ARRL, and is expected to attract many newcomers to the U.S. Amateur Radio Service.

Within two weeks of announcing Novice Enhancement, the U.S. FCC issued a Notice of Proposed Rulemaking which, if adopted, would give the bottom 2 MHz of the U.S. 220-225 MHz amateur band to the Land Mobile Service. In compensation for this loss, FCC would make the remaining 3 MHz of the 220-225 MHz band exclusive amateur. ARRL will vigorously oppose this

vigorously oppose this proposal. CRRL is exploring what it might do to help the ARRL cause. Loss of the bottom 2 MHz of the 220-225 MHz band in the U.S. would certainly have repercussions in Canada.

CRRL is a participant in the International Travel Host Exchange. This is for amateurs interested in exchanging vacations with foreign amateurs, and for amateurs interested in meeting foreign amateurs who are visiting Canada. Registration forms are available from CRRL, Box 7009, Station E, London, Ontario N5Y 4J9.

Congratulations to CARF, the Canadian Amateur Radio Federation, which is celebrating 20 years of service to Canadian Amateur Radio.

Many amateurs have contacted CRRL to ask about packet operation just above 14.1 MHz. Amateur radio bands are not divided into CW and phone subbands, as is commonly thought. They are divided into FSK and phone subbands; you can operate CW anywhere. This means that U.S. packet operation just above 14.1 MHz is legal because it is in the U.S. FSK subband. Canadian packet operation just above 14.1 MHz is usually legal as well, because those using packet radio there have obtained a special endorsement from DOC. (Those who have not done this can do so easily; the endorsement is given on request.) At the IARU Region 2 General Assembly in Buenos Aires, Argentina, CRRL endorsed the Region 2 bandplan which recommended that packet radio operation take place on 14.07-14.099 MHz. Canadian packet users, however, say



conventional RTTY found on 14.07-14.099 MHz are not compatible, and in any event, they want to be able to communicate with U.S. packet users operating just above 14.1 MHz. DOC is reluctant to force Canadian packet users to move to below 14.1 MHz, partly because they do not want to discourage a new technology, and partly because in the future, they expect to be moving away from regulations that limit certain modes to certain parts of the amateur bands. So there will have to be a compromise and it will have to be developed within the amateur community. The most commonly heard suggestion

is for packet radio users to voluntarily limit their operation to 14.1-14.11 MHz. What do you think? Contact your nearest member of the CRRL Board, VE7EWI, VE6ABC, VE3GRO, VE3CDM, VE3FN, VE2ZZ or VE1SH, and let him know. Please, and thanks for your help
CRRL has been asked to publicize a DXpedition to Adaman and Nicabar. Listen for VU1RBL operating VU4APR and VU4NRO until 1987 March 31.
Planning to visit Japan? CRRL has the information you need to apply for a 7J call sign. Write to CRRL, Box 7009, Station E, London, Ontario N5Y 4J9..

OVMRC
P.O. BOX 5530 STN F
OTTAWA ONTARIO
K2C 3M1



FIRST CLASS

FIRST CLASS

JIM HAMILTON VE3GJY
2038 ARCH ST.
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K1G 2H1