

DECEMBER 1991

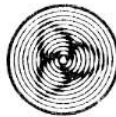
# THE GROUNDWAVE



NEXT MEETING WILL BE HELD  
WEDNESDAY, DECEMBER 4, 1991

Club Call VE3RC

Repeater VE2CRA



Official Bulletin of the Ottawa Amateur Radio Club, Inc.

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

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	Dave Parks, VE3GSA	225-1206	
	Rob Morrison, VE3ZZR	236-6880	992-4334
	Doug Yuill, VE3OCU	567-2700	230-1741
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**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 RMOC HQ complex on Lisgar St., Ottawa, at 1930 hours. A bulletin board is available for posting notices of interest to other members about 1915 hours. Further details about each meeting is elsewhere in this publication.

**PACKET RADIO MEETINGS** will be held at 7:30 p.m. on Oct. 3, Nov. 28, 1991, Jan. 30, March 26, May 28, 1992, at the Group Lobby Room, Museum of Science and Technology. This is an OARC technical meeting open to all who have an interest in packet radio.

**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.

**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, 2-METER RIG AND AN ENGRAVING PENCIL** are available for loan to club members. The 2-meter rig may be borrowed by members who are hospitalized. 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 2-meter rig or 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	223.34/224.94	
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	
VE3DX DX Info packet	146.25 / 146.85 ;	145.11 (SX)

For further information, please contact repeater chairman.

MINUTES OF THE OARC GENERAL MEETING  
OF NOVEMBER 6, 1991

The November meeting of the Ottawa Amateur Radio Club was called to order by the president, Peter Jago, VE3PWJ, at 7.35 p.m. Visitors were asked to identify themselves and they were formally welcomed to the club meeting by Peter.

The President then addressed the matter of the letter he had received from Michael Spenuk, VE3JTQ, which had been published in full in the November "Groundwave". Peter explained that the letter had been discussed at great length at the last executive meeting and he was pleased to report that Michael had agreed to chair a special committee of club members who would attempt to address all the issues raised in the letter. Its goal would be to recommend a restructuring of the club and its activities to reflect, more accurately, the wishes of club members. He then asked if there was any comment, at this stage, from the floor. Fred Green, VE3IO, rose and made a short statement which emphasized the OARC's growing problem with attracting new, young amateurs to the club. All agreed that this was one of the more significant challenges facing the OARC.

Representatives from the National Amateur Radio organizations were asked to address the meeting and Dan Holmes, VE3EBI, read extracts from the latest CARF newsletter.

The President then welcomed Harrie Jones, VE3HYS, who gave an interesting talk updating the audience on the latest developments in the world of VHF and UHF repeaters in the Ottawa area. He took a straw poll of the members present to see how much interest there was in voice linking in the area.

After the coffee break Paul Cooper, VE3JLP, introduced a video which he had

borrowed from the Northern California DX Foundation, on the 1989 DXpedition to Bouvet Island, 3Y5. He handed the microphone over to Ralph Cameron, VE3BBM, who had kindly agreed to provide a translation of the commentary which was in Japanese.

The President adjourned the meeting at 9.45 p.m.

LOCATION OF OARC MEETINGS

Do we want to go back to the NRC for our meetings or somewhere else - where? This will be discussed at the next meeting (December 3rd).

DECEMBER MEETING

Gerry King, VE3GK  
will give a talk about  
"Home Brewing"  
and  
Paul Cooper, VE3JLP  
will present a video tape  
on Pitcairn Island  
featuring Tom Christian, VR6TC  
VR6TC

NEW OFFICERS

The Executive is very pleased to report that the vacancies for Vice President and Secretary have been filled.

Furthermore, we have welcomed addition to the team, an Assistant Secretary. The new officers are:

Vice President Paul Coverdale VE3ICV  
Secretary Brian Summers VE3JKZ  
Asst. Secr. Barry Hall VE3BXH

Thank you Paul, Brian and Barry for taking on these tasks.

Paul and Brian are well known to everyone, both having served in the highest positions on the executive in earlier years.

Barry is a new amateur and will, we hope, wish to serve on the Club's Executive in a more demanding role after he has gained experience by being teamed with Brian for a while. He could not have a better person than Brian to 'teach him the ropes'.

#### IN CASE YOU MISSED IT

WE REGRET TO ANNOUNCE that our friend Jean Evans VE3DGG, long-time manager of the CARF QSL Bureau died suddenly on Wednesday 30 October 1991, in her eightieth year. (Item 1, CARF News Bulletin 16-91.)

#### JOINT PRESS RELEASE FROM CRRL AND CARF, Kingston, Ontario, 1991 October 27.

Representatives of CRRL and CARF including members of the CARF-CRRL Merger Committee and core members of the CRRL and CARF executives met in Kingston, Ontario, on Sunday October 27, to continue work on the creation of a new, single Canadian Amateur Radio Organization.

Discussions centred on the legal requirements for dissolution of the two existing organizations, and upcoming vote by CARF and CRRL members on this question, the constitution and by-laws for the new organization, the amalgamation of office operations, and the creation of a detailed time line for next steps. The latter assumes a favourable outcome of the vote by the members.

It is now expected that the new organization to be called Radio Amateurs of/du Canada (RAC) will be in place by mid to late 1992.

Original signed by  
J. Farrel Hopwood B. Balla  
President CARF President CRRL  
(Item 2, CARF News Bulletin 16-91.)

CARF MEETS DOC: Members of the CARF Executive met with DOC officials in Ottawa on Thursday, October 24, 1991. Topics for discussion included progress in the formation of the new single organization 'Radio Amateurs of/du Canada (RAC)', a review of the Restructuring program, exams and question banks, antenna structures policy, WARC '92 and questions regarding co-ordinating the use of 220 to 222 MHz along the U.S./Canada border.

See December 91 issue of The Canadian Amateur magazine for more details of this important meeting. (Item 3, CARF News Bulletin 16-91.)



MEG? I'LL HAVE TO DRIVE GEORGE HOME MYSELF--- HE'S BEEN STANDING OUTSIDE STARING UP AT MY NEW 175 FOOT TOWER

de Worldradio

**AUTOMOBILE HT SUPPLY**

An automobile power source for your 2M hand held can be made for a few dollars and an hour of your time. I have tried a couple of circuits using an ECG291 transistor and an LM317T. They both use 4 to 5 components to make them work.

The heart of the unit is the Zener diode. It is available in various voltages (6.8, 7.5, 8.2, 8.7, 9.1 and 11.0 volts, etc.) and available from local electronics stores.

I would suggest the Zener you pick is lower than the voltage of the battery. For example: use a 6.8 volt Zener diode with a 7.2 volt battery and add a diode in series to bring up the Zener voltage.

The Zener that I used was a 5.1 volt, which gave me 5.7 volts output. I then added 7 diodes in series below the Zener (see OPTION) to increase the voltage from 5.7 to 10.2 volts in 0.7 volt steps.

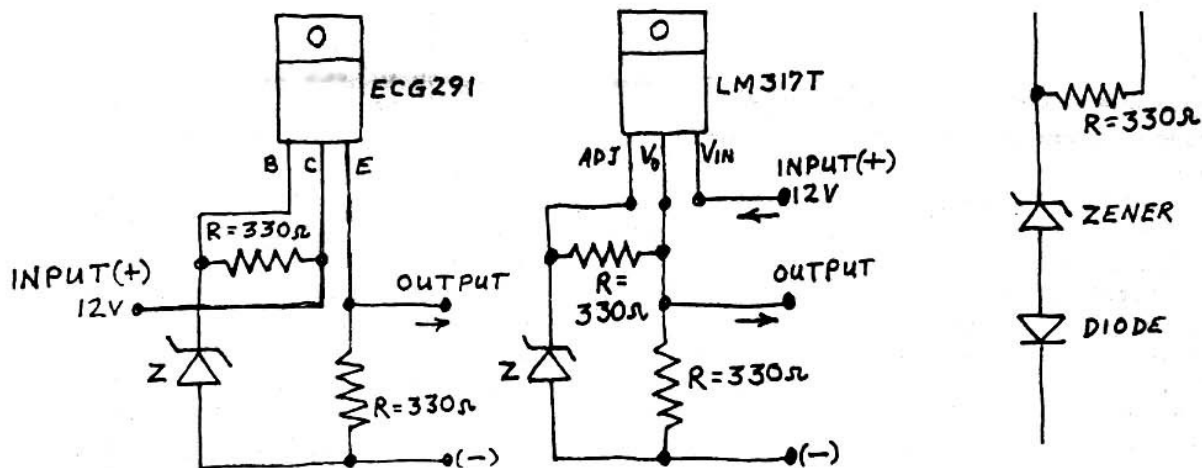
Parts List

Parts List	Radio Shack No.	Price
LM317T	276-1778	\$ 3.45
Heat sink for above	276-1363	1.96
Hardware for above	276-1373	1.47
330 ohm 1/23 watt resistor	271-8017	0.58
Zener diode from various sources		approx. 1.50
Box to mount above parts	270-230	2.74
Lighter plug	274-331	2.63
Lighter plug* with cord (optional)	270-1534	7.00
Approximate total		\$13.00

\*Not indicated in total cost is the cord and plug assembly, which might need to be ordered from original manufacturer.

Have fun!

Ray VE3CZE  
from the Guelph Amateur Radio Club Bulletin



ANTENNAS FOR 2 METERS

For most of the old timer's in the club antenna building is old hat, however, with the newcomers and the advent of packet radio and other new digital modes the vertical antenna is ok for short hops to the nearest repeater. However, more distant repeaters require a better signal than what the vertical can dish out.

With this thought in mind, and with the kindness of Harold VE3DYG's gift of a channel 2 TV antenna, I made up a 5 element beam for 2 meters to-day, and checked out the SWR on it.

Before you get gung ho on this new project, you better decide what frequency you wish to operate. If you look in THE BOOK (ARRL Handbook) in the VHF section you will find a set of tables for various VHF bands. The frequencies listed are for the center part on the band. Should you wish to shift a megacycle or two, you may want to change the lengths given, I did.

I cut this antenna to 145.150 MHz, to get the ZMG repeater and be close to the packet repeaters. In THE BOOK, you will run across a formula  $5440/F\text{mhz}$ . This will give you the length of the driven element in inches, as follows:

I want my antenna to operate at 145.150 MHz.

Driven element is  $5440/145.150=37.47$  inches.

The reflector is 5% longer than the driven element:  $(37.47*1.05)=39.35$  inches long.

The first director is 5% shorter than the driven element:  $(37.47*0.95)=35.60$  inches, thus  $37.47-1.87=35.60$  long.

In THE BOOK, they show each director element is .75" shorter than the previous director so I used these numbers:

Director #2 is 34.91" long, director #3 is 34.16" long.

Now that covers the element lengths; the spacing between elements is next.

In THE BOOK, they show several element spacings that you can use. I chose the 0.2 wavelength of 16.00". (I used the formula of  $5440/145.150 * 2 * 0.2=14.99$ " spacing. I used THE BOOK's numbers.)

The matching stub (Gamma Match) was not spelled out too well in THE BOOK. They show using a small capacitor 25pf to couple the gamma match to the driven element. I did not have one or a box to mount the capacitor in, so I did it this way. I took a piece of tubing (part left over from the elements, cut it 7" long, flattened one end 1/2", drilled a hole in it, 3/16", and connected it to a SO 239 coax fitting, then reamed the other end out to allow a small piece (6") of RG59 coax to slide in, and made up a shorting bar to hold the one end of this coax. Look at the sketch.

Testing...To do this you should have a VHF type SWR/Wattmeter. I used a 45 watt 2m rig and the new Radio Shack Meter, and connected this to the antenna. To change the SWR you will have to slide the coax in or out of the 7" tube.

The antenna looks pretty broad in frequency range, and still has a good SWR.

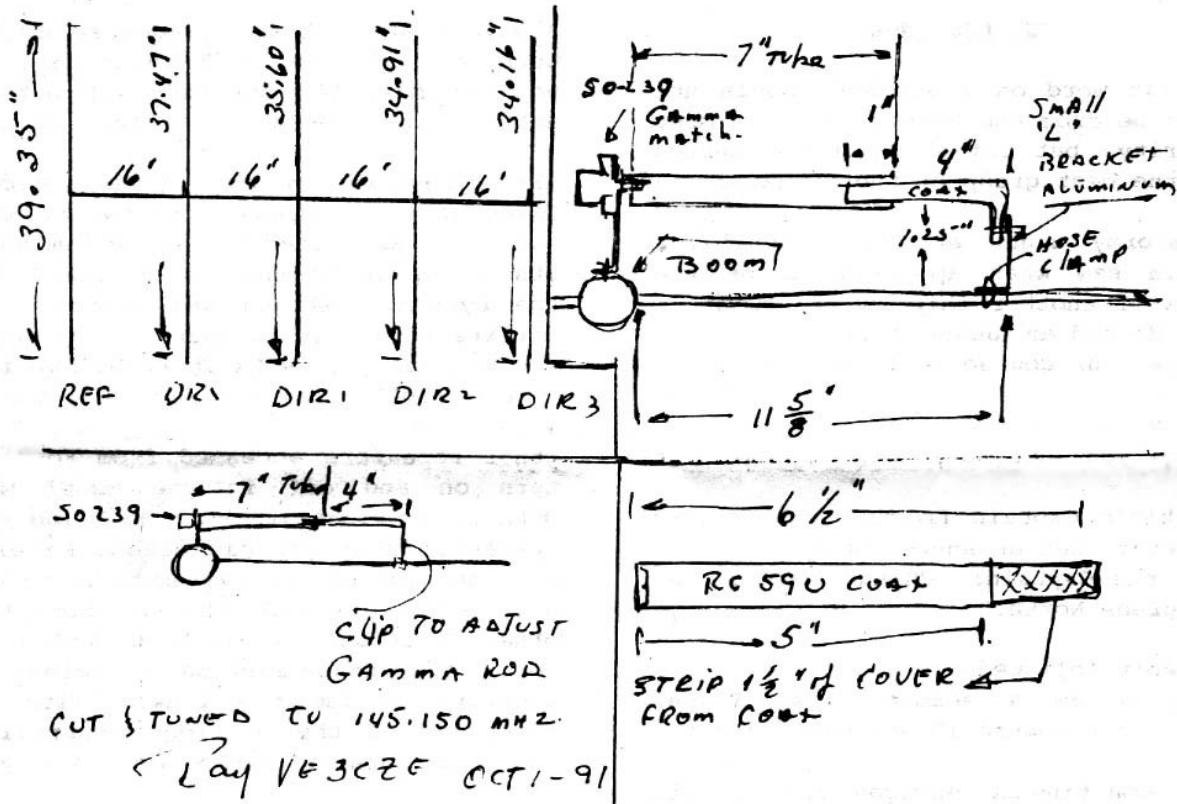
As of this writing, I have not checked the gain or the front to back ratio. I may let some lucky guy that gets this antenna to do the testing for the experience.

You can use any TV type of antenna from Channel 2 to 6. Any one above this you will find the elements too short for 2 meters. My cost was \$0.00. Time used, including testing, about 3 hours. A good week-end project. GOOD LUCK.

Ray VE3CZE

October 1, 1991

from the Bulletin of the Guelph Amateur Radio Club



THE BOTTOM HALF OF  
THIS PAGE WAS TORN  
OFF IN THE ORIGINAL

-mk VE3FFK

THE LAST WORD

The last word on a subject should not always be from the person with the most authority, but rather from the person with the best grasp of the situation.

One stormy night at sea, the ship's Captain saw what appeared to be the lights of another ship out in front of him. He had an answer sent:

"Change your course 10 degrees North."

A reply came blinking back:

"Change your course 10 degrees South."

The ship's Captain frowned and, slowly simmering, had an answer sent:

"I am the Captain: Change your course 10 degrees North."

The reply followed:

"Well, I am a seaman First Class: Change your course 10 degrees South."

This impertinence enraged the Captain and, glowering at his signalman, he had

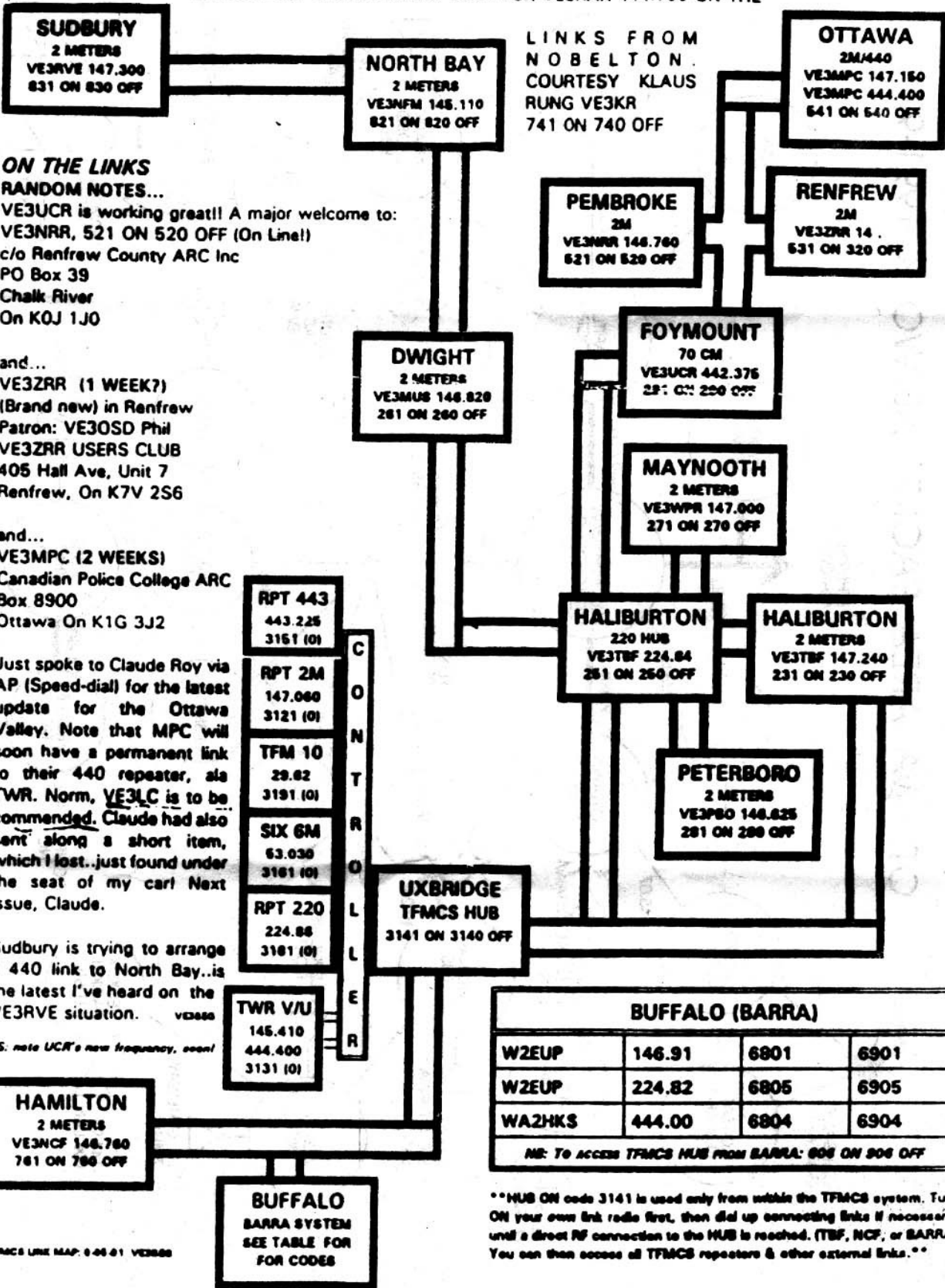
Always listen to each repeater as you turn it on to see if it is in use. If you can make the desired link without using a local 2-metre repeater, do so.

All repeaters in the system, except Foymount and Ottawa, follow a basic pattern. Each step in the system sends its own ID in CW when it is linked into the system. Ottawa and Foymount are different in that Foymount is not a Hub in the same way as Haliburton, but is a direct link. It does not send the ID when turned on as the hubs do. The other repeaters accessed from Foymount turn on and off in the usual way. Ottawa, for the moment, is a one-way street in that you can access Foymount and the rest of the system from Ottawa, but people calling into the link from other locations cannot turn Ottawa on. Note: Your tones must be very clear and accurate to use the link. With the exception of the Uxbridge controller, the repeaters do not regenerate your tones.

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-mk VE3FFK

REALLY LAST MINUTE NEWS: LOOK FOR VE3RAK 444.700 ON THE



LINKS FROM NOBELTON. COURTESY KLAUS RUNG VE3KR 741 ON 740 OFF

**ON THE LINKS**  
**RANDOM NOTES...**  
 VE3UCR is working great!! A major welcome to: VE3NRR, 521 ON 520 OFF (On Line!)  
 c/o Renfrew County ARC Inc  
 PO Box 39  
 Chalk River  
 On KOJ 1J0

and...  
 VE3ZRR (1 WEEK?)  
 (Brand new) in Renfrew  
 Patron: VE3OSD Phil  
 VE3ZRR USERS CLUB  
 405 Hall Ave, Unit 7  
 Renfrew, On K7V 2S6

and...  
 VE3MPC (2 WEEKS)  
 Canadian Police College ARC  
 Box 8900  
 Ottawa On K1G 3J2

Just spoke to Claude Roy via AP (Speed-dial) for the latest update for the Ottawa Valley. Note that MPC will soon have a permanent link to their 440 repeater, aka TWR. Norm, VE3LC is to be commended. Claude had also sent along a short item, which I lost...just found under the seat of my car! Next issue, Claude.

Sudbury is trying to arrange a 440 link to North Bay..is the latest I've heard on the VE3RVE situation. v3ase

PS: note UCR's new frequency, soon!

- RPT 443  
443.225  
3151 (0)
- RPT 2M  
147.000  
3121 (0)
- TFM 10  
29.02  
3191 (0)
- SIX 6M  
53.030  
3161 (0)
- RPT 220  
224.88  
3181 (0)
- TWR V/U  
145.410  
444.400  
3131 (0)

BUFFALO (BARRA)			
W2EUP	146.91	6801	6901
W2EUP	224.82	6805	6905
WA2HKS	444.00	6804	6904
NB: To access TFMCS HUB from BARRA: 608 ON 606 OFF			

\*\*HUB ON code 3141 is used only from within the TFMCS system. Turn ON your own link radio first, then dial up connecting links if necessary, until a direct RF connection to the HUB is reached. (TBF, NCF, or BARRA) You can then access all TFMCS repeaters & other external links.\*\*

# OTTAWA AREA PACKET NETWORK 1991-92

