
: THE GROUNDWAVE - OFFICIAL PUBLICATION OF THE OTTAWA AMATEUR RADIO CLUB - NOVEMBER 1975 :
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DEADLINE FOR COPY for the December issue will be November 13 for articles of length and November 20 for short paragraphs and announcements. All correspondence should be addressed to: Carl Everson, VE3BYX, GROUNDWAVE Editor, Box #4, Osgoode, Ont., KOA 2W0.

THE NEXT REGULAR MEETING of the Ottawa Amateur Radio Club will be held at the National Research Council, 100 Sussex Drive, Ottawa, on Wednesday November 3, 1975 at 2000 hours (8:00PM) local time. On the program for this meeting will be Dr. Jack Belrose, VE2CV, who will talk on the new repeater being planned at Jack's place of employment. It will use the call VE3DRC and autopatch and other experimental techniques are in the works. Also on this program will be Bob Zieman, VE3ATN, who will talk on the 'new look' at the CBC. A new UHF TV transmitter is being installed at Camp Fortune as well as other changes and equipment updates (ie CBO changing from 910 to 920 kHz, etc.)

Presently slated for the December meeting is a talk on the facilities at CHU, the NRC time-standard broadcasts - more on this later.

THE OARC EXECUTIVE MEETS regularly on the first Tuesday after the regular Club meeting, in the Board Room at CFR4, 150 Isabella St., Ottawa.

RENEW YOUR ARRL MEMBERSHIP through the OARC - you save time, postage, M.O. fees, etc., and the Club also benefits. See Hank, VE3BR, at any of the meetings.

MAUREEN NEILL, VE3FZY, spends her working day around the Civic Hospital and has offered to visit any Amateur who might be confined there. Just call her at 725-4581, or after 5:30 at 233-9941, if you hear of any Amateur who would appreciate a visit. Maureen also has a request from a prospective Amateur who wants to borrow or buy an allband rcvr.

THE ANNUAL OARC AUCTION will be held on Saturday November 1, 1975 at the EMO Headquarters, 495 Richmond Road, Ottawa. Registration of articles will be from 9:00 AM to 12:00 noon, auction will be from 12:30 to 5:00 PM. All items will be taken on a first-come/first-served basis. Come and bring your 'goodies' and be prepared to bid on your neighbours 'goodies'. Please identify your articles clearly as to your callsign and also what the item really is. Honestly! sometimes we can't determine what the item really is (or was) and we can't expect people to bid on something if they don't know what it is - or can we? Also, we know that you're ashamed to admit ownership of a lot of the things which are brought in but if your call is clearly marked on everything, it sure helps the people who are listing the items. Be sure to mark off the call of the guy who brought it to the auction last year, he wouldn't feel right getting paid twice for the junk he got too much for to begin with. If you really don't want to admit ownership, just donate the things to the OARC, all donations gratefully accepted, and your name or call will never be mentioned. See you there!

THE BEGINNERS CLASS at Algonquin College being taught by Gerry King, VE3GK, is off to a good start with almost 50 hopefuls registered. These are divided into two classes which meet once a week for instruction. Gerry tells us that there is need receivers for these people, either on a loan or sale basis, to give them added practice copying CW. If you have an available receiver suitable for CW practice, call Gerry at 225-3428.

1976 MEMBERSHIP FORMS appear inside the back cover of this issue. Current members renew on a continuing basis. New members join now and receive additional GROUNDWAVES for the balance of 1975. Remember the family membership plan.

THE CONVENTION IS OVER! No more Countdown to Convention! No more Tuesday night Committee meetings! No more dashing around doing the hundreds of jobs which had to be done. But lots more memories! Lots more friendships made! Lots more fraternal feeling and respect for our fellow Amateurs!

Initial planning revolved around the 500 figure for registrants. The last figure I heard quoted was 880. It was hoped that at least 50 rooms would be taken at the Skyline. Well over 100 were taken and late-comers were being directed to neighbouring accomodation.

To mention everyone who helped put it over so big would be impossible. We will never know who, or how many, worked diligently but obscurely behind the scenes. To single out workers for special mention would be unfair to those others who gave, and done, to the best of their ability. And, after all, this is all anyone can do.

But over it all there was one unifying force, one common thread tying it all together - the Convention Committee Chairman, George, VE3BNO. His patience, his cheerfulness, his dedication to the task at hand brought out the best in all of us.

Lao-tse wrote of such things over 2500 years ago:-

A leader is best
when people barely know he exists.
Not so good
when people obey and acclaim him.
Worse when they despise him.
But of a good leader
who talks little
when his work is done
his aim fulfilled
they will say:
"We did it ourselves."

BOY! WE SURE PUT ON ONE HECK OF A CONVENTION DIDN'T WE?

MINUTES OF THE PREVIOUS MEETING - The regular meeting of the Ottawa Amateur Radio Club was held in the Auditorium of the National Research Council on October 1, 1975. The meeting was called to order at 2010 hours.

The Chairman was Larry, VE3CRX, Vice-President, in the absence of President Ron, VE3AUM. Guests introduced by the Chairman were Sean Huntly, VE3HXP, and Mike Kolson, VE3CNK.

It was requested that cigarette butts be put in the ash trays which are attached to each seat, empty coffee cups in the garbage containers, and if members wish to use the facilities, please let the Commissionaire know - the same applies for the soft drink machine in the basement.

The minutes of the previous meeting were adopted as printed in THE GROUNDWAVE on a motion by Bill, VE3EKA, seconded by Bob, VE3HBQ.

A financial statement was given by the Treasurer, Cy, VE3CVK. At the present time there is a balance in the bank of \$758.99.

The Membership chairman, Vic, VE3DEP, reported that there were 210 members in the OARC at present.

Carl, VE3BYX, the GROUNDWAVE editor was applauded for his good work on the GROUNDWAVE and he in turn thanked the members for their contributions of articles.

Convention Committee chairman, George, VE3BNO, reported on the RSO Convention which is only two days away.

The question of Field Day was brought up, and whether or not the club should run one next year seeing that there was not too good a turnout this year.

Emergency Communications chairman, Larry, VE3CRX, reported that Shinerama had been a complete success.

Gerry, VE3GK, reported that he has a good group in his beginners class at Algonquin, but that there is a need to borrow or buy receivers for practice. Anyone with a receiver to sell or lend should contact G. King at 225-3428.

The meeting ended with a Quiz Game, ending in a tie for the two teams and was then adjourned at 2128 hours on a motion by Dave, VE3BTY, seconded by Ralph, VE2BMH.

Maureen A. Neill, VE3FZY, Secretary

THE TRILLIUM WEEKEND CONTEST will be held from 7:30 P.M. November 7, through to 7:30 P.M. November 8, 1975 EST (00:30 GMT Nov 8 to 00:30 GMT Nov 9). The Ontario Trilliums, being the host club, will call "CQ TW", all others should call "CQ TOT".

Each Trillium station may be contacted twice but no more, for example: one fone and one CW contact (same band), or two fone contacts (different bands), or two CW contacts (different bands), or one fone and one CW contact (different bands). Exchange signal report, name, QTH, and the Trilliums will give their club numbers. No cross-band operations may be counted, but cross-mode operation will be permitted.

Logs must be submitted containing: - date, time (GMT), RS or RST, band, mode, TOT number, as well as your name, address, and claimed score. All logs must be signed by the operator. Use standard log sheets or facsimile. CW and fone contacts each count 5 points. Apply a low-power multiplier of 1.25 for stations running 150 watts CW or fone, 300 watts PEP SSB, and under. Add a bonus of 100 points for each 10 (ten) Ontario Trilliums worked. Send logs to Joan Powell, VE3FVO, 39 Brightbay Cresc., Thornhill, Ont., L3T 1C2, postmarked not later than Dec 31, 1975 and received not later than Jan 15, 1976.

All participants sending in a log are eligible to win one of the prizes in the lucky draw. The non-member with the highest score will receive a Trillium Plaque. The second and third-place scores will receive Certificates.

The TOTs will be operating all frequencies and modes on 80, 40, 20, 15, 10, and 2 meters. Some suggested frequencies are: - 3770, 3855, 3685, 7240, 7103, 14280, 14140, and 14035 kHz. (Joan, VE3FVO, VP, The Ontario Trilliums, via The Ontario Amateur)

CARLETON UNIVERSITY ARC executive for 1975-76 is as follows: - President, Alan Taylor, 731-1444; Vice-President, Craig Howey, VE3HWN, 824-7764, Sec-Treas, Gord Woroshelo VE3EYW/3, 746-6408. The club, to date, has about 20 members and are still accepting memberships from both students and those outside the University. The club's address remains as: - The Carleton University ARC, Uni-Center, Carleton University, Ottawa, K1S 5B6. Recent repairs to both the equipment and to the antennas have put the club station back on all bands. Phone-patches may be run shortly. 73. Gord Woroshelo, VE3EYW/3, Sec-Treas.

DON'T FORGET THE SWAP NET offers you its services whether for selling, swapping, or buying. The Swap Net is conducted by Ed, VE3GX, on the air as part of the Ottawa Valley Mobile Radio Club Inc. Pothole Net each Saturday morning at 10:00 hours local time on 3760 kHz and is repeated as part of the OARC Capital City Net at 2000 hours local time each Monday evening on repeater VE2CRA. To list items you may have for sale or swap, or which you may desire, just call Ed or Doreen (VE3CGO) Morgan at 733-1721, or on repeater VE2CRA. Items are listed for a period of one month unless otherwise cancelled or reinstated. Please let Ed know if you sell or obtain your item so it can be taken off the list. Anyone, licenced or not, is welcome to make use of this service provided by Ed and Doreen.

RENE DESCARTES, the French mathematician, philosopher, and father of modern scientific thought, proposed four principles which are as valid today as they were three hundred years ago. In all your deliberations, he said, consider: - 1) Evidence - do not accept anything as true until you yourself recognize that it is indeed true; 2) Analysis - divide up problems into many parts and solve them one by one; 3) Synthesis - put things together, thus mounting in single stages to the most complex knowledge; 4) Control - make your surveys so wide as to ensure that nothing is omitted.

These principles can be applied, in one way or another, to almost every facet of life, whether it be day-to-day living, understanding basic electron action, or developing complex logic circuits. Try them on your next project!

AMSAT QSL BUREAU manager WALEHF has moved to California but WALEDX is filling in the void temporarily and the 288 Grand Street, Bridgeport, Conn. 06604 address is still valid. Current OSCAR orbit information is as follows:
 OSCAR VI : Nov 1, 1975; Orbit #13917; Equator crossing (S-N) 73 deg.; Time 0129 GMT.
 OSCAR VII: Nov 1, 1975; Orbit # 4389; Equator crossing (S-N) 58 deg.; Time 0034 GMT.
 and may be updated as per the September issue of the GROUNDWAVE.

ONE OF THE RSO CONVENTION SPEAKERS was Wayne Green, W2NSD/1, Editor of 73 Magazine. Wayne has gained the reputation of being a controversial and outspoken opponent of the Establishment in the United States. However, he did not come across as clear and forcefully in his Convention Address as I had hoped he would. This is in no way a criticism of his ideas or methods, and may have been tempered by the fact that, after all, he was in a foreign country. His references and criticism of the FCC went a little beyond us and did not have the impact here that might have been the case in the U.S., because we, as Canadians, have very little if any contact with that august body. On the other hand, if he had "taken on" the DOC in a similar manner, I feel the majority of us, even though we might feel just as strong, or stronger, on the subject, would have had sufficient nationalistic feeling to resent it coming from an outsider (It's OK for me to beat up my brother, but don't let me catch anyone else doing it!). Either way, Wayne was a loser on this count.

Concerning Amateur Radio as it presently is, Wayne's remarks were pretty much to the point, but only what any clear-thinking person would have to admit to being true. Two meters is undoubtedly becoming a band of button-pushers very much akin to our GRS brothers, with the main difference being, of course, that each and every operator on two meters is able to send and receive Morse Code at the rate of 10 wpm if they ever desire or have need to do so. Many HF contacts consist solely of the exchange of irrelevant and superfluous information on such things as equipment, weather, antenna, etc. It is a medium for one to talk about one's own equipment in the mistaken belief that the other person is really interested. RTTY is fast becoming just an automated counterpart of HF CW and limited by the operators typing ability (By the way, how-come we require a code speed of 10 wpm to operate CW but there is no typing speed requirement to be met before we operate RTTY?).

Granted, no mention has been made here of traffic handlers, emergency communications, the training of radio operators for other services, and the genuine friendships made and pleasant QSO's encountered on other occasions. But are these of all the importance they are cracked up to be? Would the country really fall apart if there were no Amateurs to handle various communications, emergency or otherwise? Are we really the training ground for radio operators for other services, as we used to be, or are people who have been trained by other means now coming to Amateur ranks more as an afterthought than anything else? Is Amateur Radio still the breeding ground for new ideas as it used to be, or is equipment becoming so exotic that it is beyond the realm of an individual to really experiment and develop new concepts and ideas of merit? Is the fact that a small percentage of the country's population likes to rag-chew by radio sufficient justification to retain the large percentage of spectrum space presently allotted to Amateur Radio?

On the answers to these, and other, questions hinge the future of Amateur Radio. What way must we take to justify our occupancy of the bands? I don't have an answer! --- and Wayne Green didn't seem to have one either - or else I didn't grasp his implications. We certainly can't justify it by numbers alone, in stations per kilohertz we could never hope to equal the GRS band. It remains then to justify it by actions. But by what action actions? Certainly not by merely pushing buttons, running endless tapes through TD heads, or by countless, meaningless "NAME HR IS...QTH IS...RIG IS...ANT IS...PSE QSL CUL 73" contacts. We must advance the state of the art!

Repeaters in themselves were such an advancement. But repeater operation is very much cut and dried today. It remains to add sophistication, automatic devices performing a variety of functions, autopatch, or what have you? However much it may irk the ragchewer and the ones who prefer to monitor a nice quiet silent repeater until one of their ragchew cronies calls in, it is still the sum and essence of radio and electronics and a much greater justification for the use of the frequency. AMSAT is another legitimate justification of spectrum use, as is the VHF transponder concept being experimented with in the Sudbury and other areas. On a different tack is the handicapped Amateur program going strong in some areas at the present time. Anything which adds colour and anticipation to an otherwise frustrated life must be well worth-while.

It is thing to propose or agree that changes in Amateur Radio are a must, but it is quite another thing to set down on paper in an orderly fashion our concept of what these changes should be. Earl Andrews and Bill Wilson tried it. Regardless of the outcome, it was a valuable effort in that it generated discussion and got us thinking.

(Continued on page 8)

OVER 60 YEARS AGO, in September 1915, the U.S. Government had just received evidence of the usefulness of Amateur Radio Operators. The scene was Sayville, Long Island where was located Radio Station WSL, owned by the Atlantic Communications Company. It was determined that the ACC was further owned and controlled by the Telefunken Company of Germany. Officials were of the opinion that the Sayville station might be transmitting information on about 9000 meters (33kHz), which contained clandestine military information directed toward German submarines.

At that time, (June 1915) only one man had experience in recording material directly off the air ... and sure enough, that pioneer was an Amateur. His name was Chrs. E. Epgar, of 549 Carelton Rd., Westfield, N.J. His Amateur experimental station was 2MM. He was approached by the U.S. Secret Service, and Inspector L.R. Krumm, of the radio service, to set up equipment to record every transmission carried out by WSL. Charles, 2MM set up his equipment and began recording the transmissions on June 7, 1915.

By June 21, he had recorded 175 cylinders of material which were turned over to the governmental agents who determined that acrostic codes were used in transmission of material which could be construed as an "unneutral act" against countries opposed to Germany in the war. (The U.S. was not yet involved directly in the war). Based on the recordings, which formed a record from which the coded messages could be deciphered, the U.S. Government on July 9, 1915, announced that in the future the transmitter at Sayville would be operated by Americal Naval officers in the interests of its proprietors, and that the Secretary of Commerce had refused to issue a license for operation of WSL by the ACC.

In this day, when anyone makes a recording at a moments notice, such a feat seems small indeed, but listen to the remarks of the German scientist, Dr. Frank, operator of the station, when he was advised of the manner by which the evidence was gathered ... Dr. Frank said, "That Mr. Epgar can record messages sent out by wireless on a phonograph cylinder is hardly worth discussion. That is physically impossible! I have never heard of its being done. If Mr. Epgar has accomplished it, he should get his idea patented and perhaps we will buy it!"

Down through the years Amateurs have led the way in communications. It is this tradition which binds us together, and this work by our pioneering members that has earned for us the respect and honour shown Amateurs throughout the world.

(Credit: Wireless Age, September 1915 via QCWA News September 1975)

ABOUT CRYSTALS BY LES SMITH Many of you have had frustrating experiences with ordering crystals. You may find that the ones you receive do not work, but before you land too heavily on the supplier, please bear in mind that it may be due to insufficient information being supplied. You alone know exactly what you need, and you must make it clear in your order. The basic necessity is the carrier frequency and the set in which the crystals are to be used. Crystals are made for specific sets and are not often interchangeable with any other, so the make and exact model of set should be clearly stated.

Next in importance is the holder. Holders are identified by the military nomenclature. HC6/U is the larger metal holder, with pin spacing of $\frac{1}{2}$ " (.486" to be exact). It is called a miniature holder and has .050" pins or can have .093" pins if specified with the order. HC25/U is the smallest standard metal holder, and is called sub-miniature. It has .040" pins spaced .192" and is also available with low cover height of .437" instead of standard .500". HC18/U is the same as the above but with wire leads $1\frac{1}{2}$ " long. HC32/U is half-way between HC6 and HC25 and is used only in the Marconi DT75 transmitter and one or two others.

Particularly if you are putting a commercial set on 2 meters, you should specify the holder. You may want to go multi-channel and may want to use smaller crystals. Don't keep it a secret from the crystal supplier! Much of this, however, is not necessary with commercially built Amateur 2-meter gear. State the frequencies you want for transmit and receive. "146.34T-146.94R for VE2CRA for HW202" is a good example. Finally, believe it or not, a surprising number of inquiries come in with no signature, no address or any other way of identifying the customer. It isn't that suppliers like to be difficult, but it helps to know where and to whom to send the crystals.

To summarize, too much information is better than too little! (TFM Bulletin)
(Mr. Les Smith is the proprietor of LESMITH LTD, Box #703, Oakville, Ont., crystal suppliers who donated four sets of crystals for the local EMO Communications Van. Tnx Les - Ed.)

TOUCHTONE SIGNALLING has become an integral part of many amateur repeater functions and this escalating interest warrants a short article on the subject. "TOUCHTONE" is a registered trade-mark of the Bell Telephone System.

Most readers are no doubt familiar with regular dialing systems, that is, where the telephone DC continuity on the line is broken by the rotary dial at the rate of about 12 pps. This pulsing is used at the telephone switching office to advance stepping relays and in turn routes the subscriber through and out of the switching office in a pre-programmed manner. This system has done, and is doing, a good job with reliability extending over many years. However, recent designs in switching equipment have resulted in systems which intrinsically do not need pulsing for call routing. In fact, where regular rotary dialing is used in new systems, it is necessary to convert pulsing information into binary codes in order to process calls. This pulse-to-binary conversion takes much longer than actual switching. It is for this reason that Bell Labs developed the tone type of dialing.

With tone dialing, each number digit is merely a combination of two tones. That is, when a digit button is pressed, two tones are generated at the subscriber unit and transmitted over the telephone line to the switching centre. Conversion to the necessary binary information required by the new switching system is instantaneous, eliminating the need for pulse conversion, and greatly increasing call processing efficiency as a function of time. Several peculiarities of tone signalling make it desirable for Amateur applications:

Tone signalling only requires that appropriate tones be sent over the lines, DC coupling is not required. This means that TOUCHTONE signals may be coupled to the phone line by almost any means. Also, because the frequency tolerance of the office decoders used at the switching centers is very stringent, the TOUCHTONE signalling units (pads) are very stable and reliable. This means that we can build decoders which are of a very narrow band-width and because two tones must be decoded, problems with false signalling and other interference are eliminated.

TOUCHTONE signalling may be used for both repeater control and for the control of other functions at the repeater site, the former by regular telephone line dialing, the latter by on-air signalling. The following figures show typical connections for some types of pads and also a chart showing the frequencies generated by each digit.

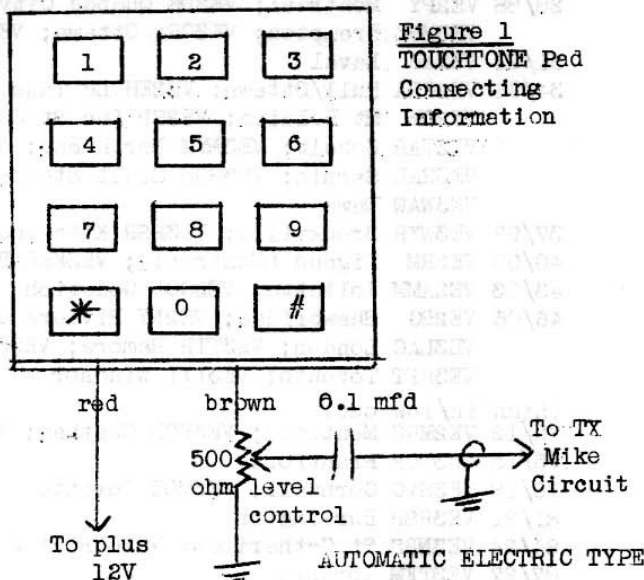
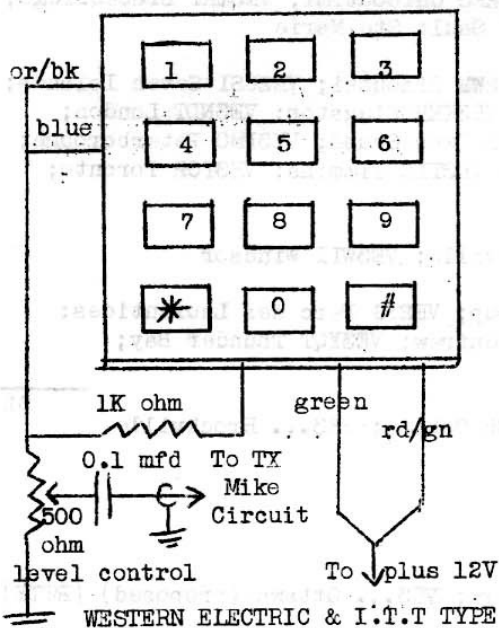


Figure 1
TOUCHTONE Pad
Connecting
Information

L	H	1209	1336	1477
697	1	2	3	
770	4	5	6	
852	7	8	9	
941	*	0	#	

Figure 2
TOUCHTONE
Frequencies

Credit: Bob Frost, K1VTF, Burlington ARC via The Marcogram and edited for THE GROUNDWAVE.

 HOW TO AVOID CHAOS with Two-Meter FM Sets -- By John Henry, VE2DNM

TABLE I OTTAWA AREA REPEATERS

<u>PRIME</u>	VE2CRA 34/94 Camp Fortune, Que	VE3ORA 28/88 Ottawa (West), Ont.
	VE2CSO 10/70 Hull Que. (by Nov '75)	VE3OCR 25/85 Ottawa Ontario.
<u>SECONDARY</u>	(Outside antenna needed)	
	VE3SFP 46/06 Mt St Patrick (Renfrew)	VE3SVR 16/76 Morrisburg 40 miles (56 miles)
<u>REMOTE</u>	(Outside beam needed, depends upon conditions)	
	WR2AGQ 31/91 Canton NY 64 miles	WR2... 22/82 Ogdensburg NY 52 miles
	VE2RM 40/00 Rigaud (Montreal) 62 miles	(K2AZC)

Distances are approximate from Parliament Hill. Access to the Secondary and Remote repeaters will depend upon your location, antenna, and power. Thermal inversions and other weather fronts may cause the distant repeaters to totally disappear or become very strong. On a number of occasions in September 1975, I was able to turn on the Oshawa repeater, VE3OSH, on 147.72/.12 because no other repeater in this area uses this frequency. DX operating of FM repeaters is possible.

TABLE II QUEBEC/ONTARIO REPEATERS

(low in/high out)		
04/64	VE2ECM Montreal (RTTY)	1
07/67	VE2AT Trois Rivieres	1
10/70	VE2XW Mont St Bruno; VE2CSO Hull; VE3TTY Toronto (RTTY)	3
13/73	VE2MT St Jovite	1
16/76	VE2... Noranda/Rouyn; VE2DN Morin Hts/Laurel; VE2VD Orleans (Quebec City); VE2IU Chicoutimi; VE3NRD Deep River; VE3ORW Hamilton; VE3SVR Morrisburg; VE3SRS Sudbury	8
19/79	VE2TA Sherbrook	1
22/82	VE2UX Mt Ste Anne; VE2VP Jonquiere	2
25/85	VE2VS Laval; VE3BOR Barrie; VE3LSR Orillia; VE3OCR Ottawa	4
28/88	VE2PY Montreal; VE2DB Quebec City; VE2ES Chicoutimi; VE3MRT Bracebridge; VE3MHZ Brampton; VE3ORA Ottawa; VE3SJI Sault Ste Marie	7
31/91	VE2AU Laval	1
34/94	VE2CRA Hull/Ottawa; VE2EH La Tuque; VE2WM Rimouski; VE2CSI Seven Islands; VE2CM Mt Belaire; VE2SP Lac St Jean; VE3KER Kingston; VE3NDT London; VE3TAR Cobalt; VE3NFM North Bay; VE3OSR Owen Sound; VE3PBO Peterborough; VE3SAR Sarnia; VE3SSM Sault Ste Marie; VE3TIS Timmins; VE3TOR Toronto; VE3WAW Wawa	17
37/97	VE3WXR Brockville; VE3KSR Kitchener	2
40/00	VE2RM Rigaud (Montreal); VE3KBR Belleville; VE3WII Windsor	3
43/03	VE2AMM Joliette; VE3GOD Goderich	2
46/06	VE2BG Shawbridge; VE2NY Riviere du Loup; VE2TG Parc des Laurentides; VE3LAC London; VE3TIR Ramore; VE3STP Renfrew; VE3YQT Thunder Bay; VE3RPT Toronto; VE3III Windsor	9
(high in/low out)		62
72/12	VE2MRC Montreal; VE3KCR Chatham; VE3OSH Oshawa; VE3... Brockville	4
75/15	VE3TCR Brantford	1
78/18	VE3SVC Cornwall; VE3MOT Toronto	2
81/21	VE3RSB Burlington	1
84/24	VE3NRS St Catherines; VE2CVR St Jean	2
87/27	VE3TFM Toronto	1
90/30	VE3WCR Port Colborne; VE2QU Three Rivers; VE3... Ottawa (proposed) (RTTY)	3
93/33	VE3TDX Toronto	1
96/36	VE3DRC Ottawa (experimental)	1
(non-600kHz spacing)		16
46/94	VE2CRF Trois Rivieres; 147.42/146.64 VE2IN Quebec City	2
		<hr/> 80

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HOW TO AVOID CHAOS with Two-Meter FM Sets (Continued)

If each town had only one repeater, the present crystallizing of FM sets would be simple. We start off with a few channels, though, only to find that our Christmas and Birthday gifts to ourselves cost another \$10 or \$12. Then we have the problem of remembering in which channel is the 16/76 crystals etc. The following rational crystal plans are for those with 23 channel sets.

PLAN A		PLAN B		PLAN C	
Ch		Ch		Ch	
22	52/52	1	skip	8	28/88
23	94/94	2	"	9	34/94
1	46/06	3	"	10	40/00
2	34/94	4	94/94	11	46/06
3	28/88	5	52/52	12	72/12
4	22/82	6	16/76	13	skip
5	16/76	7	22/82	14	78/18
				1	34/94
				2	94/94
				3	skip
				4	52/52
				5	25/85(?)
				6	16/76
				7	22/82
				8	28/88
				9	31/91 or 37/97
				10	40/00
				11	46/06
				12	72/12
				13	skip
				14	78/18

TABLE III

Plans for Crystal Placement

Note that there is some order to the crystal stepping. In addition, Plan B and Plan C have some numerical reminder of the real frequency of operation, such as, Ch 6 is 16/76, Ch 8 is 28/88, etc. This makes operation in foreign territory easier to handle, especially when driving. Note that Ch 12 and higher are all for 147 MHz repeaters. Plan A is ideally suited to the fellow who just received his first 2-meter FM rig. Plan B is recommended for the same rig when crystal expansion is planned, but not for rigs with a priority call channel. Note also that Plans A and B place the direct frequencies right at the lowest end of the repeater channel numbers to reduce the full rotation of the selector everytime that the mode is switched from repeater to direct operation or reverse.

Plan C is intended for the TR-7200 or Multi-7 type set which has a pushbutton priority channel call. The Ch 3 is left blank for a 55 or 58 direct. If you like one of the plans, then reserve space and put in the crystals as you obtain them, you need not have all of them at once. If you have a favorite other channel such as 33 direct, then put it in Ch 21 (Plan A), Ch 3 (Plan B), Ch 23 (Plan C), or whatever seems most convenient.

The above plans are intended to let you do a bit of planning and make the use of repeaters when you are out of town a little more convenient. Don't forget to take the repeater list along with you when you travel. Have fun! John Henry, VE2DNN, Aylmer, Que.

LETTER TO THE EDITOR

68 Springfield Rd, Apt 3, Ottawa, Ont., Oct 12/75

Having listened to VE2CRA over the past month, it seems obvious that many users either have forgotten how to sensibly use a repeater in a courteous manner or just don't know or care.

It has become increasingly difficult to make a call on the repeater because several individuals will not even give a short 3 second pause for breakers. They continue on for 10 or 15 minutes, rag-chewing to their hearts content, while some users are trying desperately to break in for a call. That is stupidity and ignorance.

There are also other lost souls who continually kerchunk the repeater and make ridiculous sounds over the machine. I don't know if these are "10-4 good buddies" who have gotten their hot little hands on a 2-meter rig or some poor deranged person with nothing better to do.

The whole situation is getting worse and out of hand. I believe that if VE2CRA users can't conduct themselves properly, the repeater should be shut down at that instance by remote control. Perhaps also, the timer should be set at 90 seconds or less.

Ragchewing on VE2CRA for long lengths of time should be greatly discouraged. With all the synthesizers and multi-channel rigs around, I see no reason why the use of simplex frequencies and other area repeaters should not be highly stressed to all regular users of VE2CRA. Something must be done soon. Thank you - 73.

Gord Woroshelo, VE3EYW/3

A PROMINENT PHYSICIAN says that kissing will be a thing of the past in about fifty years. How right he is.....for most of us!

INSURING YOUR FM TRANSCEIVER - The October GROUNDWAVE carried some of the considerations involved in insuring a riceburner against theft from an auto.

Here are a few more from my own experience:

These days, of course, portable radios, tape players, cameras, and so on, are among the most popular targets of sneak-thieves. They can be readily bartered and such a thief hasn't time to ponder the uses to a 'fence' of a ham rig, if he sees an electronic goodie.

In mounting your rig, try for as inconspicuous a spot as is consistent with operational convenience. Remember the common-sense rules: Park in busy, well-lit areas. Lock your doors. In underground garages, spots closest to pedestrian entrances and ramps are busiest, and therefore best to discourage would-be thieves. It's foolish to leave your rig in an apartment or hotel garage overnight. Snap it out and take it in with you. I usually cover my rig with an old blanket, removing temptation from the eyes of spur-of-the-moment opportunists, during daily parking periods.

I drive an old crotch with 106,000 miles on it and carry only liability insurance. The first thing my agent told me was that I couldn't have theft coverage for the IC-20 and crystals unless I carried the same category of coverage on the car. I was being asked to pay \$15 for insurance on a \$300 car, so that I could pay another \$8 for a \$450 radio. Figure that one out!

I took the view that my radio, if locked in the car, should be covered under the "theft off premises" section of my homeowners' package policy. Not so, said the company, even though they acknowledged it wasn't bolted to the car. "Look," said I, "...If it's in a suitcase, locked in the trunk, and someone pries open the trunk and makes off with the suitcase, I'm covered, ...eh?" "...If someone breaks into my hotel room and steals my IC-20 ...or breaks into my basement at home for that matter...in all those cases, I'm covered under the homeowners' package, am I not?" Yes, I'm covered!

But if the unit is in the passenger compartment it's not. I found the solution was what the insurance industry terms a "personal articles floater" amendment to the homeowners' or tenants' policy: It covers the radio "against all risks of theft or loss, regardless of where" the radio may be located. To hedge myself against those shark-tooth adjusters, in the event of loss, I sent a registered letter to my agent when I applied for this coverage, emphasizing that solid-state electronic devices depreciate very little and that crystals have virtually no depreciation. That's worth-while remembering. If you have a \$300 rig and \$150 worth of crystals in it, don't forget to include them.

Under such a personal articles floater, \$450 worth of coverage cost me \$8. I save all invoices and bills of sale for valuables to prove both their worth and that they are actually mine! As anyone who has ever dealt with an adjuster on a theft claim can vouch, these are invaluable.

An electric engraving pencil, borrowed from an insurance agent, or from the Community Relations Division, Ottawa Police Force, 60 Waller Street, could be put to a few minutes good use engraving your Social Insurance Number on the inside of your rig's case to aid identification, insurance claims, and successful prosecution of a thief or someone unlawfully and knowingly in possession of stolen property. Mike Bryan, VE3CGT

 (PAGE 3 continued) True, some of us just sank deeper into the same old rut. If this is the path Amateur Radio is to take, then fine!, at least an attempt was made at what was believed to be an improvement.

THE GROUNDWAVE will welcome, and print, any and all reasonable comments on this subject from anyone, whether it be from you, from Wayne Green, from GRS operators, or from other interests who are looking at our frequencies with greedy eyes. (VE3BYX)

JANUARY IS ELECTION MONTH for the OARC. A nominating committee has been set up with VE3GRJ as chairman and members VE3CUA, VE3BTY, and VE3GSA. It will be their duty to propose a slate of officers at the December meeting. Further nominations will be received from the floor as well. If you would like to assume a particular office, or if you know of someone who might be coerced into assuming one, get in touch with any of the committee members.

 - - - - - A PLAN is something either abandoned or unfinished!