SEPTEMBER - 72

The Groundwave

SEPTEMBER '72

PUBLISHED BY THE OTTAWA AMATEUR RADIO
CLUB, P.O. BOX 8873, OTTAWA, Ont. K1G 3J2

FIRST MEETING

OF

THE OTTAWA AMATEUR RADIO CLUB

1972-1973

The first meeting of the 1972-1973 season will be held in the Main Auditorium of the National Research Council Sussex Drive, Ottawa.

Date: September 6

Time: 8 O'clock P.M.

There will be a valuable attendance prize given at this first meeting of the new season. Be sure to be there.

Coffee, cookies and rag chew following the meeting.

"THE GROUNDWAVE" IS THE OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB, AN ASSOCIATION OF RADIO AMATEURS DEVOTED TO THE PROMOTION OF INTEREST IN AMATEUR RADIO COMMUNICATION IN THE OTTAWA REGIONAL AREA, AND TO THE ADVANCEMENT OF THE TECHNICAL COMPETENCE AND ACHIEVEMENT OF CLUB MEMBERS.

CLUB NET: The Capital City Net, 2000 hrs local time every Monday on the club repeater VE2CRA, which has an input of 146.460 Mhz and an output of 146.940 Mhz. VE2CRA is monitored during weekday business hours by VE3CGO, Doreen Morgan.

OTTAWA AMATEUR RADIO CLUB

ELECTION RESULTS

As a result of the election on June 7, the following officers were elected:

President: VE3DHB John Bartlett, (by acclamation, Doug Yerxa had to withdraw because of a new posting)

Vice-Pres: VE3AZY Colin Rowe, by acclamation. (In addition Colin has also committed matrimony, so double congratulations to him).

Secretary: VE3BR Hank Harley, who nosed out VE3EYJ Dick Justin.

Treasurer: VE3DIH George McCullum, by acclamation.

Directors: VE3CEZ Lyle Ward; VE3CUA Ray James; VE3GDV John Henry. VE3DNJ Mike Patriarch was runner-up.

It was some dismay that the executive learned early in August that the new President had to turn in his badge due to a promotion which will effectively preclude much in the way of spare time for some time to come. Congratulations on the promotion, John, and our regrets at your having to resign.

With some hundreds of members in this club, it does not reflect much on the initiative in it that this year's executive contains many familiar names. In fact, even after a great deal of effort on the part of the nomination committee, little or no new talent could be prevailed upon to run with the result that there were a number of acclamations of officers who reluctlantly agreed to stand once again to keep this club going.

The September meeting will be chaired by VE3DIH, our Treasurer, in lieu of the Vice-President, who because of other business cannot make it.

MINUTES OF THE LAST MEETING -- June 7, 1972

The regular monthly meeting of the Ottawa Amateur Radio Club was held in the National Research Council Auditorium on June 7th., 1972.

The meeting was opened by the President at 2000 hours. He extended a welcome to visitors and friends, among whom were:

VE2AIM; VE2EDP; VE3AVP; VE3AAS; LA1SP; VE2WM; and VE3BMH

The minutes of the previous meeting, published in the Groundwave, were brought to the attention of the meeting for their pleasure. VE3BTS moved that the minutes be adopted as published. Seconded by VE3GDV. CARRIED

The President announced that a quorum of voting members was present, therefor the business of the evening could be carried through to a conclusion.

The President recalled the recent passing of VE3GDW, and announced that

the club had sent a suitable donation to the Cancer Society rather than the usual floral tribute.

It was also announced that the HQ129 receiver belonging to the club had been returned to the custody of VE3FXG.

Forms for Field Day participants to make their desires known were made available.

The President announced that the Ground Wave had had a very successful year, judging from the requests to reprint articles, and remarks especially about the propagation charts appearing in the bulletin. However it was noted that the positions of Editor and Publisher were open and that volunteers were required to carry on the publication of the bulletin.
The repeater group reported that the new custodian was Lyle Ward, VE3CEZ Lyle is also the custodian of the club station license, VE3RC.

The beginner's class committee reported that classes were now concluded for this season. Several graduates who recently received their calls were at the meeting.

The Rivermede Golf Club have requested that the club assist them with communications during a torunament to be scheduled during August. This matter was referred to the new executive for action.

Similiarly, the Carp Airport expressed a desire to have in the neighborhood of 14 stations to assist them in an air show of two days duration the 23rd and 24th of July. This request was also referred to the new committee.

Certificates of appreciation were presented to the hosts of the recent tour through the Lucerne plant of the Northern Electric Company. A similiar certificate was presented to John Henry VE3GDV for his excellent presentation at the last club meeting.

The question of repeater access control was raised from the floor. The President pointed out that this had been a matter of serious discussion in recent executive meetings. It was the feeling of the executive that controls, though easy to apply, were difficult to enforce or administer and at the same time, deprived some operators of their privileges. It was felt that all regular users of the repeater should at least acknowledge their appreciation of the repeater by becoming members of the club.

Andre, VE3CLZ, posed the following question to the meeting: "Would the OARC be willing to sponsor a 6 meter repeater which he had already to put into operation?". He was requested to present this question to the repeater group for their consideration.

There being no further business of this nature, the meeting was turned over to Nick, VE3FFW, for the election of officers for the next season.

The slate presented to the membership was:

For President:	VE3HB	John Bartlett	Acclamation
" Vice-Pres:	VE3AZY	Colin Rowe	"
" Treasurer:	VE3DIH	George McCullum	"

For Secretary:	VE3EYJ	Dick Justin
	VE3BR	Henry Harley*
For Director:	VE3CEZ	Lyle Ward*
	VE3CUA	Ray James*
	VE3DNJ	Mike Patriarch
	VE3GDV	John Henry*

* Elected

Nick concluded his "thing" for the evening by requesting a vote of thanks for the retiring executive members.

Tony, as a last gesture, passed along his thanks to his committees, a special "thank you" to Mike Byon and Larry Emmerson, Editor and Publisher of the Ground Wave, for their "professional" job. To the organizers and instructors of the beginner's classes also, the grateful thanks of the club.

A motion for adjournment was made by VE2BMH, seconded bt VE3BTS.

CARRIED

Henry Harley
Secretary

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NEWS FROM THE DEPARTMENT OF COMMUNICATIONS
THRU THE CANADIAN AMATEUR RADIO FEDERATION

CARF Bulletin No. 4 for July 72 notes the following changes in operating regulations:

BANNED COUNTRIES LIST; Canadian amateurs may not communicate with GABON, IRAQ, PAKISTAN, TURKEY, LIBYA, KHMER REPUBLIC, and YEMEN. In VIETNAM only XV5AC has been granted permission to communicate with foreign amateurs (Canadian included). It is believed that this station is operated by a Canadian. Communication with CYPRUS is also forbidden except for special occasions when call sign 5B4 prefix will be used. The "special occasions" are not noted. List effective 23 June 72.

THIRD PARTY TRAFFIC AGREEMENTS Effective 29 Feb. 72, third party traffic is permitted with BOLIVIA, CHILE, COSTA RICA, DOMINICAN REPUBLIC, HONDURAS, EL SALVADOR, ISRAEL, MEXICO, PERU, VENEZUELA, USA Territories and Possessions, TRINIDAD and TOBAGO.

RECIPRICAL LICENSING AGREEMENTS Effective 22 March 72, reciprocal licensing agreements are in effect with BELGIUM, BRAZIL, DOMINICA, DOMINICAN REPUBLIC, ECUADOR, FRANCE, FEDERAL REPUBLIC OF GERMANY, ISRAEL LUXEMBOURG, MEXICO, NETHERLANDS, NORWAY, NICARAGUA, PERU, PORTUGAL, REPUBLIC OF PANAMA, SWEDEN, SENEGAL, SWITZERLAND, USA, URUGUAY, VENEZUELA.

All Commonwealth countries are eligible for reciprocal amateur operating privileges unless there is evidence that a country does not grant reciprocal operating privileges to Canadian amateurs.

THE COLLECTORS' CORNER

The Canadian Ladies Amateur Radio Association announces the CLARA "Worked YLs Across Canada" certificate, starting September 12, around 14.160 mHzfor international and Canadian contacts and around 14.280 mHz for US. The requirements are:

CLARA Members. work 12 YLs in 6 call areas (not more than 5 VE/s)

Canadian and USA YLs and OMs. Work 10 YLs in 5 call areas (Not more than 4 VE3s)

DX Stations: work 5 YLs in 3 call areas (not more than 2 VE3s)

The eligible call areas are VE1 through VE8, VO1 and VO2. All bands, all modes are eligible. No cross band contacts are valid nor are contacts made on the CLARA Net. CLARA Net meets Tuesdays 1900 GMT around 14.160 mHz and members will QSY for eligible contacts. GCR rules apply. QSLs must be in your possession but only send complete log data with entry, along with $1.00 Canadian or IRC equivalent for the certificate. Send an SASE (Canadian stams only) with log data for endorsements. Address entries to Cathy Hrischenko, 30 Lisburn Crescent Willowdale, Ontario. QSLs dated 12 September 1972 or later count.

AMATEUR RADIO IN NORWAY

Hans Østrem, LA1SP, from Oslo, was quite active through the Ottawa repeater during his recent stay in the city. Hans attended Ridgemount High School last term and is visiting other parts of Canada before returning home.

In a talk to the Ottawa amateurs, Hans said that out of a population of about 3½ million, there are 4,000 amateurs and "registered" SWLs who all belong to the Norwegian Radio Relay League -- the Norwegian equivalent of CARF. The League has a good-looking, slick-paper publication which is singularly free from advertising, compared with North American magazines.

The amateurs are licensed by the Norwegian Department of Telecommunications; SWLs can apply to the NARL for a "registered number" and then use this on their QSL cards. This recognition provides an incentive for them to obtain their amateur license.

The minimum age for an amateur license is 16. Licensing requirements are 12 WPM plus a technical examination. There is only one grade of license, which permits immediate all-mode operation on all bands. Consideration is being given to a beginner's license with 8 WPM code and a time limit in which to obtain the present grade of license.

Like most European countries, power is limited to 50 watts AM or 250 watts PEP on SSB. A special license for 250 watts AM may be obtained through the Department of Telecommunications if the applicant has been on for two years, has had 1000 QSOs and has a recommendation from one of the senior amateurs who act in an official capacity of monitor for the amateur bands.

A most interesting fact described by Hans was that various city radio clubs have "construction evenings" when beginners and licensed amateurs get together and construct various radio gadgets with the help of club instructors. The builders buy their kits from the clubs and the clubs supply the tools. This type of effort sustains the interest in beginners classes, an idea that could be profitably copied by Canadian clubs.

Another feature of the Norwegian program to swell amateur ranks is the Youth Radio Clubs which are run by qualified younger amateurs to assist younger persons to obtain their licences and to advance their technical knowledge.

QSLs FROM LA1SP

Hans would like to exchange QSL cards with those he met on 2 meters and has left cards for VE3DTC, BTS, DHB, BSD, CGW, GX, CQD, BNO, GGA, FKD, FFW, AHA, FHN, JN, CUL, YJ, AAS, CLW, GTP, DIG, CTW, CRX, BCO, VE2NM and VE2ZD. These will be available from VE3CDC, Doug, at the OARC and Mobile Club meetings. Doug will collect your cards and send them in a bundle to Hans, so bring them along with you.

CARF NEWS

Due to the large number of new calls appearing on the two meter repeater this portion of the Ground Wave is devoted to the problems stemming from increased and unskilled usage of VE2CRA and to some technical hints on getting the Marconi DT23B sets operational.

HOW TO USE A REPEATER AND STILL KEEP YOUR FRIENDS (AND LICENSE)

With scores of rigs now capable of hitting our two meter repeater, there are bound to be many operators who are not familiar with good repeater operating practice. Poor repeater procedure can lead to embarassment for the newcomer or careless old hand and is frustrating and annoying to those who have already caught on to and practice the tricks of the trade. If you have "graduated" from the low bands, leave your low band procedures behind, too. The technical advantages and drawbacks of FM repeater operation demand different techniques. A number of them are listed here. If you use them you will keep your air pals happy and make it pleasant for yourself.

1. PAUSE before you xmit in answer to another station. Remember this repeater is a huge party line and one of the other 200 stations may have a priority message. Give the other operator a "break".

2. If you have traffic or want to join the QSO use the pause to break in by giving your call and the station you want.

3. A local rag chew frequ ency is 146.76. The DT-23B has two channels. If you want to rag chew, buy a second crystal and use VE2CRA as a calling frequency. If you must rag-chew on the repeater, do it when it is not busy. (0100-0600 is suggested -EDST)

4. DON'T "HOG" THE FREQUENCY! The monopolization of the repeater for hours on end seven days a week by the compulsive talkers in our midst means that many erstwhile monitors have been"turned off" themselves and then turned off their rigs. This defeats an important purpose of this repeater -- consistent and extensive monitoring -- which means that assistance to mobiles in an emergency or for their telephone traffic may not be available when needed.

5. GIVE MOBILES PRIORITY Mobile traffic can be urgent and of an emergency nature. The repeater is primarily aimed at fostering and serving mobile units by extending their range.

6. THE TIMER on this repeater has been designed deliberately to choke off the long-winded, thus giving others a chance to break in. The timed interval allows plenty of time for most messages or words of wisdom..

7. KEEP YOUR TRANSMISSIONS SHORT! SHORT! SHORT! AT PEAK TIMES
Short transmissions on road and traffic conditions are helpful and appreciated. Vivid and long descriptions of the sods you encounter, a street-by-street account of your progress and the narrow escapes which you have are not of much use or interest to others on the frequency. They all encounter the same nuts behind the wheel as you do. Besides, in Ottawa what's new about lousy drivers or close calls!?

8. UNNECESSARY IDENTIFICATION -- is poor procedure. The repeater automatically identifies itself with a low level MCW signal. THAT eliminates the necessity of your naming VE2CRA in every transmission. On FM it is easy to recognize voices, hence voices or names usually are sufficient identification for working on a repeater; so THAT eliminates repetitious and unnecessary identification of YOUR station. If you are making a seris of transmissions you need only identify your own station at the end of the last one, or at least every half hour,to satisfy the DOC regulations for station identification.

9. OFFER HELP IN THE REPEATER MAINTENANCE AND CONSTRUCTION PROJECTS. All kinds of help is needed on occasion.. Leave your name with the Repeater Committee Chairman, Lyle Ward, VE3CEZ. Use can be found for anything from strong backs to electronic wizards.

10. DON'T BE A FREQUENCY FREELOADER ! VE2CRA is sponsored by the Ottawa Amateur Radio Club, assisted by the Ottawa Valley Mobile Radio Club, whose Ed Morgan, VE3GX, conducts the Capital City Net's popular "SWap Net" and whose Doreen Morgan, VE3CGO, most efficiently handles the repeater's monitoring and telephone traffic service. Support the repeater by joining one of these clubs (or BOTH, as do a number of local amateurs);

11. DON'T JAM THE FREQUENCY WITH TESTING! It is NOT like HF! It's a different ball game technically as well as operationally. If you are tuning a rig crystalled for the repeater FIRST GET YOU RECEIVER WORKING or have a separate receiver tuned to the repeater output because VE2CRA is sensitive enough to pick up radiation from the coax to a dummy antenna, if the length is right, or even, under certain conditions, it can pick up a grid dip meter. With a receiver working you can tell if you are triggering the repeater or if you are cutting up conversations in progress. Identify your station if you do trip the repeater. If you are inexperienced enough that you can't tell by the repeater tail that you are triggering it(that sshh-ker-chunk after you stop transmitting) there are no doubt others who will inform you rather quickly that you are!

(more DOs and DON'Ts on the next page.....)

12. Use your full call when identifying. It is an infraction to use 3XX for VE3XX.

13. The proper operation of the station is the responsibility of the custodian and his delegated assistants. Infraction of the DOC regulations jeopardizes not only your own license but that of the custodian and the club. The club's monitoring committee will report offenders to the DOC in order to protect the club license.

14. If VE2CRA users abide by these practical and courteous procedures we will continue to have the good repeater we have had to date. Continual and wide-spread poor operating can only lead to certain remedies being applied.

15. To summarize:
FM operations are very different from HF SSB. Learn the ground rules and abide by them.
- PAUSE before answering: DON'T use the "snappy comeback".
- DON'T RAG-CHEW - Deliberate timer re-cycling won't make you loved (wanted, maybe, but not loved). Keep the irrelevant garbage content low.
-DON'T IDENTIFY UNNECESSARILY. DO IT PROPERLY.
-PAY YOUR WAY - Join the club - help when asked.
-Remember the golden rule - like the jailbird's philosophy - think break; and like his haircut - keep it short.

TECHNICAL NOTES

ON THE CARE AND FEEDING OF THE DT-23 - By VE3CDC

The first step many hams take is to clean up the rig, which is usually loaded with a gummy crud. It seems hard to believe that the simplest way to do it is to wash it! Remove the speaker, vibrator and tubes. Use a spray bottle of an ammonia-based cleaner - Ajax, Whistle, Whisk etc. Make sure it does not contain lye (sodium hydroxide). Lay the chassis on its side and spray it thoroughly several times. Use a cheap paint brush (cut it off short to make it stiff) and scrub the chassis top and bottom. Rinse the set off with very hot water, preferably using a spray hose. It is better not to immerse the set.
Dry the set out in an oven about 100 degrees for at least five hours. Better still, use a hair dryer or a forced air 1000 or 1500 watt electric heater.
The slugs in the coils may be frozen. They can be released using automobile "heat riser lubricant" if the ammonia/detergent bath didn't loosen them. Be careful not to crumble the ferrite slugs. If you do, or have to drill them out, new slugs or cannabalized ones can be inserted. Most of the receiver coils and transformers have two slugs in each coil.
So much for the mechanical procedures. Here are some modifications and tuning hints. First read the handbook carefully (the tuning procedures for all of the DT-23 series are similiar so any of the handbooks will do).
Then - check all your tubes. These sets have been around for a long time and invariably there are two or three poor tubes in each set. Be careful when using substitutes. Not all substitutes will work in the DT-23 circuits as they are.

Here are some mods which may upgrade the receiver performance:
- try a 6EV5 in the first RF (V101) if replacing the 6CB5. The associated ckts may have to be slightly retuned. The 6EV5 is a high gain tube but it does not last as long as the 6CB5.
-V109 - remove cathode ground and insert 500 to 1000 ohm pot and set for minimum noise rejection.
-V102 - replace 1.5k cathode to ground resistor with 100 to 120 ohms to give maximum sensitivity.
-on some of the DT-23 series there is no cathode by-pass on V110. Try a 30 mfd 25 volt minimum electrolytic capacitor across the R15 to ground. Replace R15 with 100 ohms. This should increase audio output. If these parts are not available try putting one capacitor of 30-100 mfd across the existing resistor R15.

And on the transmitter:
- L 201 - remove and rewind this coil if you can't crank the rig down to 146 without a good output. Wind 2 new coils using #28 enamelled wire, 13 turns on the top part, 12 on the bottom. Keep the two coils separated as far as possible or you may get interaction between them.
-A "cheapie" mic clip can be made by removing the knob guard on the gain and squelch control knobs, filing a notch in it to fit the mic holder button, and then replacing the guard whichnow doubles as a holder.

To run therig on 12.6 V AC, simply remove the vibrator and plug a 12.6 V AC xfomer on the 12 V DC posts, and short the vibrator socket holes 1 and 6 together by making a jumper plug out of an old six pin tube base or Amphenol plug. Holes 1 & 6 are the two large ones and show on the ckt diagram as terminals 1 & 6 of the vibrator. The xformer should be able to carry a 10 amp load on transmit. For the relay operation pick up 12.6 v AC from a suitable spot and insert a diode rectifier and connect a suitable capacitor (say 500 mfd 15 v) from the terminal to ground.

GROUND WAVE CHANGES

Mike Bryon, VE3CGT, has had to relinquish his editorship of the Ground Wave after doing a real professional job on it for a year, Between his jobs, a new house and night classes, he found the time to put out a first class club paper. Doug Burrill, VE3CDC, has agreed to take over as editor for a year, Doug, like Mike, has a background as a professional journalist. His phone number is 733-7108, and he is looking for news from and about members.
Larry Emmerson, VE3GGA, after five years noble service as publisher, is relenquishing the post to George Roach, VE3BNO.

LITTLE KNOWN HEROES

Many club members owe a vote of thanks to Vern McCourt, VE3PY for his co-ordinating the ordering of crystals for the DT-23 sets at a good price. Unfortunately, in one order the company pulled a goof and made all the .94 crystals to the wrong frequency. The error was discovered before all of them had been distributed, but it required a major effort to retrieve the bad ones and send them back.
Especially disappointed were those graduates of VE3KE's (John Clarke) class in Kemptville, who had brand new licenses, rigs and xmit xtals, but no receiver xtals. As John said, "retrieving those duff crystals was like taking candy back from a baby" However, by a special effort, the supplier replaced all the duff rocks by July 13th.

Many thanks to Sonny Grey, VE3BTS, and to Al Kirk, VE3DTC, who repaired and tuned three score of the DT-23Bs, and not to forget Bill MacLeod, VE3DQM, who as procurer of the sets deserves a special commendation for his high-level scrounging.

THE AMATEUR RADIO FEDERATION (CARF) RECEIVES FEDERAL CHARTER

CARF was granted its federal incorporation papers on May 27th and now with "Incorporated" after its name, officially acts as a liaison and advisory agency between its members and DOC. CARF is a federation of provincial amateur radio societies and has other specialized amateur organizations as affiliate members. Individual amateur mambership and a national amateur radio publication are projected for 1973.

PROPER IDENTIFICATION - DO YOU KNOW THE REGULATIONS?

Here is the relevant part of the DOC regulation on identification:

You must identify:

"(i) At intervals not greater than thirty minutes during any period during which the station is transmitting.

(ii) At the termination of:

(i) A single transmission, or

(ii) Each exchange of communications with another station"

(GRR-II-27)

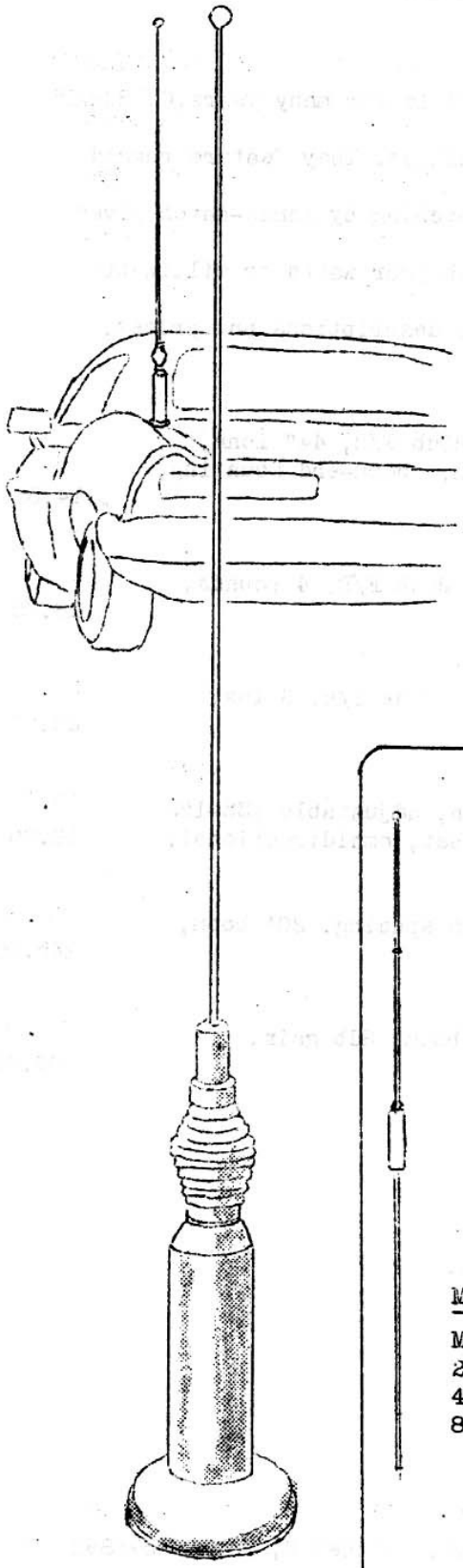
Note that you are not required to identify the beginning of each transmission, or at the end of each transmission in a series. During "round tables" it is advisable, from the viewpoint of good operation, to identify your station at the time of entry, and then at intervals of a half hour, as required by DOC, during the period of participation. You are, however, required by DOC to send your call sign when you sign off and leave the group. It is not required by DOC to send the call sign of the other station(s) being worked, and again, the sending of these call signs is only necessary for good operating practice where there may be some doubt as to the next station to transmit.

MORE THOUGHTS ON REPEATER PROCEDURES

A real eye-opener, or ear-opener, is to listen to a taxi radio net. THAT is smooth operation. No shouting in the mike in the old AM HF mobile fashion and quick, clear traffic passing.

The transposition of HF band cliches to FM makes them even more redundant, if not ludicrous. The FM listener is left wondering at repetitious calling and the use of the "Q" code (I QSL your message) being used on such solid RT as on FM repeaters. "Roger" or "Wilco" is quite sufficient.

On any band listeners are often left in doubt as to how many people it takes to operate a station. The use of "we" to actually signify the first person singular is in English, usage, reserved for members of the Royal Family and editors. Judging from a few hours listening on the ham bands, one would draw the conclusion that, there being no licensed royalty (other than King Hussein) on the air there seems to be a great number of editors who have qualified for an amateur license.



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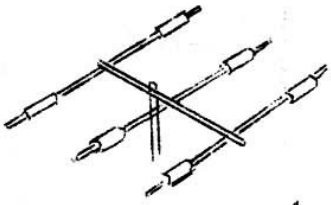
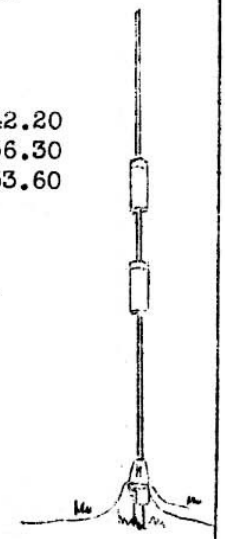
BEAMS

		$
TA-33jr,	10-15-20	135.00
TA33	"	197.00
MP-33	"	153.70



VERTICALS

RV-3C, 10-15-20	42.20
RV-4C, 10-15-20-40	56.30
RV-8C 80m adapt.	33.60



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MD-1	31.40 - incl. match net.
20 m coil	7.65
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A-144-7	7-element, 144 MHZ, 11db gain, 26db F/B, 4 pounds, 8 foot boom,	18.75
A-144-11	11-element, 144 MHz, 13db gain, 28db F/B, 6 lbs, 12 ft boom,	26.00
AR-2	base antenna, $\frac{\lambda}{2}$, 3.75db gain, adjustable 135-175 MHz, wt 2 lbs, mounts on $1\frac{1}{4}$" mast, omnidirectional:	18.00
A-14-3	20 metre , 3-element beam, .15 spacing, 20' boom, 8db gain, 22db F/B, 35 lbs:	145.00
A-21-3	15 metre beam, 3-element, 12' boom, 8db gain, 22db F/B, 16 lbs.	87.00

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Phrases which also seem popular but which are mystifying:
- "Take care! (of what?)
- "No problem" (lucky fellow)
- The long-winded and almost tearful farewell after three minutes conversation on VE2CRA "very best 73's and thanks for the QSO and we will will see you a little further down the log" (what are they? Wood termites maybe?). All this is to a guy who lives just across town and who the sentimental will hear, if not see, at least once or twice a day in the next week! Why not just "Good night Jack, VE3XX out". Yes sir, there is a lot to be said for the old Service R/T procedure when "out" meant the end of a series of transmissions but still listening and "off" meant just that..switching off the rig.

So, 10-4, fellows.

HOW OLD IS AMATEUR RADIO?

Amateur radio experimentation has a proud heritage. Scientists and inventors of the last century, and early in this one, such as Crookes, Maxwell, Hertz, Fessenden (a Canadian, by the way) Marconi and others were "amateur" experimenters, although some of them got into the commercial act in the later stages of radio development. Some of these pioneers were experimenting with radio waves more than one hundred years ago. How is this for a description of amateur radio?--

> "Any two friends living within a radius of sensitivity of their receiving instruments, having first decided on their special wavelength and attuned their respective receiving instruments to mutual receptivity, could thus communicate as long and as often as they wished by timing the impulses to produce long and short intervals on the ordinary Morse code"...William Crookes, 1892 !!

WOULD YOU BELIEVE?

Despite what may happen between Canada and Russia in the upcoming hockey series, we are still one up on the Russkies in the amateur radio world-----the QSL Bureau for Russia is Box 88 Moscow but the OARC box is Box 8873, Ottawa!

GLEANED FROM THE DOC ANNUAL REPORT

Interference from electrical appliances has been increasing rapidly and to control it DOC is taking steps with the CSA to design suppression features into such appliances. This control is being extended to outboard motors and snowmobiles.

TO PUNCH OR NOT TO PUNCH?

The Dodge Colt has a solution for those chicken individuals who worry about punching holes in their cars for the antenna mounts. The trunk opening rim and the lid both have rubber weatherstrip gasketting and the latch and hinges are isolated by rubber and nylon bushings and fittings. By attaching the receiver antenna lead to the ungrounded trunk lid, you have an antenna system. It might be fun trying to load it with a transmitter. Any red-blooded experimenters in our club willing to try it?

WARNING---UHF CAN BE DANGEROUS@

According to a story in May QST (p61) 450 mhz radiations are dangerous when high power is used. It notes that it is good practice to avoid standing near an antenna carrying more than 10 watts of power at that frequency range.

WARNING!--ANOTHER HAZARD FOR THE HAM

The Freon used almost universally in aerosol sprays, including TV TUNER or CONTACT CLEANERS and certain glues, poses a double hazard to users, according to W5PGG and WA5RTB. When exposed to high temperatures Freon may form phosgene, a poisonous gas. Freon fumes caused abnormal heart rhythms. from regular beat through fibrillation to complete standstill in laboratory animals. The same symptoms were apparent in the sudden deaths of glue-sniffing youths, according to WA5RTB of the American Heart Association. Take note that HAIR SPRAYS usually use Freon as well. Tell Momma to do her spraying in the open air and be sure your shack is well ventilated if using contact cleaners. Avoid breathing the fumes. (Thanks to "HAM MAGAZINE")

FIELD DAY - 1972 (By Al Goyette, FD Co-ordinator)

According to the unbiased participants, the 1972 OARC Field Day was an unqualified success. Opting for the two transmitters class, OARC ran separate phone and CW stations from 2PM Saturday to 2PM Sunday, June 25th.
Phone transmissions originated from a KW2000A feeding an all-band vertical. Although hastily erected, the tent housing the phone station proved ample shelter against three or four inches of rain. Rising forty feet above the hilltop, it was an impressive sight against the skyline. Compliments of VE3BNO's silent gas gobbler, power posed no problem. Flitting silently from generator to generator, George maintained his gas filling vigil every three hours during the entire exercise.
Topping off the cleaning up on Sunday afternoon, Carey, VE3ARS, gave a magnificent performance of the Hunch Back of Notre Dame after he single-handed attempted to lift George's 200-pound gas gobbler. Carey is rumoured to have spent the next two days recuperating in bed. Not to be outdone, Al VE3DJT, successfully wedged his foot between the CW station's generator and a recently fallen elm tree, a pile of horse dung and a miniature rock of Gibraltar, all within the confines of a mud hole that proved to be deeper than deep.
Our operations proved to be quite an attraction as Bart VE3TT, showed how a bus should be paddled. Sure to have taken honours as the chirpiest of the chirpers, the signal finally did make its way through the matchbox and 300 ohm line to be radiated with questionable efficiency by the all band inverted vee long wire equilateral sloping dual monopole dipole. The topic of most heated debate was whether the oneand a half KW running the CW station was four cycle or just two with another two added at random intervals. Carey agreed to test the geny for regulation by applying his trembling SB101 to the 100 to 150 VAC output. Settling down to somewhat between 115 and 130 VAC, Carey was happy to lose only one 5763 during the entire 24 hours.

Special thanks to VE3DHB's XYL Barbara, for staying to 3AM Sunday morning after having made more than 60 cups of well-received coffee. Thanks also for contributions and participation on the part of the wet operators (not in the order of importance):

George, VE3BNO, Hank, VE3BR, John, VE3DHB, Mike, VE3FFK, Bark, VE3TT; Carey, VE3ARS; Larry, VE3CPG; Alan, VE3DGS; John - newly licensed; Bob, VE1ABE; Ernie, VE3GNU; Dave, VE3ESA; Larry, VE3GGA; John, VE3CPY, Clarence, VE2NM; Colin, VE3AZY, Claude; Gerry; VE3CNT and Ray VE3ARJ.

As the last car filed out of the field day site, George, VE3BNO was seen backing up his CFRA trailer in hopes of repairing a sick tire.
The Hazeldean site proved reasonably acceptable and can be counted upon for next years' activities. See you there,

73

Al
FD Co-ordinator
1972

HOW TO KICK THE BUTTON-PUSHING SYNDROME ON TWO METRES

If you have a dual or multi-channel rig you can lessen the pressure on VE2CRA by using it as a calling frequency and then switching to simplex working on "7-6" or any other working frequency. By using a simple and inexpensive beam you can make contacts which are practically one-to-one working, or confined to a small group, just like on the REAL amateur bands. and not just button-pushing on the party line afforded by the repeater. There is some interesting and satifying operating awaiting thoee whose introduction to VHF has been via the local repeater.

CRYSTAL ORDERS

VE3CDC will again co-ordinate an order for crystals as of the date of this issue of the GROUNDWAVE, closing off the order as of SEPTEMBER 18 if the response is adequate. The price will run approximately $4.50 each, all taxes and delivery included, where a total of six or more rocks for any one frequency is ordered. Delivery will probably be about three weeks. The financing to date has neen done personally by VE3CDC but for this and any subsequent orders the terms are CASH WITH YOUR ORDER. The rocks will be mailed to you if you cannot pick them up at VE3CDC's QTH or at club meetings. The crystals are guaranteen if they have not been tampered with or subject to abuse. 450 crystals are higher in price, running $7.50 each, due to higher freqency and tolerances required at UHF. (VE3CDC, Doug Burrill, 151 Fanshaw Ave, Ottawa K1H6C8; tel. 733-7108.

TX DE VE3CDC

The Editor's thanks to the many friends who visited him or sent cards during his recent unscheduled stay in Riverside Hospital. Special thanks to VE3DIH, George, who wheeled him in at top speed, VE3FXG, Tony, for the loan of a portable rig (which throughly mystified the staff) and to VE3QB, Larry for bringing it to him, and a special"doff of the whip" to the Mobile Club's Witch Doctor, VE3GX, Ed, who accompanied by VE3CGO, Doreen, assisted the hospital staff in gauging the Editor's recovery by producing the latest issue of Cavalier Magazine and noting the eyeball reaction at the super-duper centre fold-out!

SECRECY OF CORRESPONDENCE ....means nothing to the unscrupulous. With the availability of cheapie rice-burning VHF receivers to the general public our repeater and other frequncies on the two metre band are wide open to interception by nefarious characters. Mention or discussion of absences from your house, such as family vacation plans could mean a break-in and considerable loss of your worldly goods...even, heavn forbid, the base station! One VE2 in the area attributes a break-in and the loss of a color TV to this type of operation.

MEMBERSHIP DUES ARE PAYABLE SEPTEMBER 1 FOR THE 1972-73 SEASON. THE BITE IS NOW $5.00 (FIVE, THAT IS, SON) . FOR THIS MISERABLY LOW FEE YOU BECOME A MEMBER IN GOOD STANDING, SUPPORT THE REPEATER, OTHER CLUB ACTIVITIES AND, PROVIDING THE EDITOR'S SOURCES DON'T DRY UP, TEN EDITIONS OF THE GROUND WAVE.

HERTZ? HERTZ? ...MEGA HERTZ?....NO, HEINRICH HERTZ.

The unit of measurement of frequency is not, contrary to some beliefs, a monument to the car rental business, but a tribute to the German physicist (1852-1894) who, building on the work of Maxwell and Faraday, was the first scientist to produce and detect radio waves. Hertz was a true amateur in that he conducted his experiments with spark gap transmitters purely for the advancement of his scientific theories. He was interested only in his technical achievements and never really believed that his discoveries had any practical value or commercial application. It's just as well that he never sat through an evening in front of the boob tube.

CYCLING HAMS CROSS CANADA

Using the call VE4HOB (Ham on Bicycle) Ron Sawchuk whose home call is VE4SR, and a companion, Al Willetts left the West Coast on July 1 and a rate of 100 miles per day appeared in Ottawa during the week of Aug. 14-18 and got the royal treatment after checking in on the local repeater rx frequency. VE3AUM, Ron Belleville got them newspaper and radio and TV coverage, interviews with the Mayor of Ottawa, assorted parliamentarians, including a rep from the PM's office, and the Commissioner of the RCMP. The boys were overwhelmed by the hospitality they had received in Ontario, inasmuch as they had slept out in the open until they hit this province when meals and lodging were the rule. They anticipate being on the East Coast by the time this issue reaches its readers.

BELIEVE IT OR NOT!

As a result of hard work and excellent teaching by John, VE3KE, and others, a number of Kemptville area people have received their amateur licenses and will be appearon VE2CRA (input 146.46, output 146.94). And John's business phone number has for its last four digits...yep... 4694!

"VE2No Money" Clarence Humber is now VE1HB in Sydney, N.S. Clarence is active again on 20 m and with 125 w on 2 m he was running QSO's with St. John's, Newfie, according to VO1BL, Bob, who was operating portable on 2 m in town recently.

AUGUST EXECUTIVE MEETING

As note in previous pages, John, VE3DHB, tendered his resignation as president to the executive at this meeting and after recovering from this news, the members went on to set up Committees and their Chairmen, and the program for 1972-73.

The administrative details necessary to keep the club rolling were discussed as was the matter of a new constitution, with better provision for the continuity of the executive, inasmuch as VE3DHB's resignation pointed out some of the problems in filling the position under the present constitution.

The Committees and their Chairmen for 1972-73 are:

Membership	Dick Justin	VE3EYJ	
High Frequency	John Henry	VE3GDV	
Repeater	Lyle Ward	VE3CEZ	
Construction	Ray James	VE3CUA	
Groundwave	Doug Burrill	VE3CDC	(Editor)
	George Roach	VE3BNO	(Publisher)
Program & Publicity	(yet to be appointed)		
Instruction			
Organizer:	(yet to be appointed)		
Instructors:	John Watson	VE3CPY	
(to date)	Ron Archer	VE3CNM	

Other appointments are:

Coffee	Jerry Martin	VE3CNJ
Visitors' Book	Ian Hamilton	VE3AMK
Club Archivist	Nick Krauchuk	VE3FPW
Net Manager	Sonny Gray	VE3BTS

It was decided to sponsor an auction again this fall, about the end of October.

The licensee for the repeater, VE2CRA (both 2 m and 450 meg) is Lyle Ward, VE3CEZ, who is also the licensee for the club call VE3RC.

BEGINNER'S CLASS

THE FEE FOR THE BEGINNERS' CLASS FOR 1972-73 WILL $2.00 PLUS THE CLUB MEMBERSHIP FEE OF $5.00, FOR A TOTAL OF $7.00

THE SIREN SILENCED!-- SELF-POLICING BY ALERT LOCAL AMATEUR!

The mostly male preserve of repeater VE2CRA was invaded about 8.30 p.m. on a recent Sunday evening by a delightful feminine voice cosily calling "CQ, CQ, two metres", followed by the call sign of an out-of-town VE3 amateur. Several local button-pushing gallants all got into the act, but the more cautious listeners decided from the tone of the young lady's conversation that all was not according to Hoyle, let alone DOC regulations. Their deductions were justified when she announced that she enjoyed "using Daddy's radio" and it was so much fun that she "might get a license herself". Realizing that either the young lady was laboring under the impression that the rig was a CB outfit (so much for 2 metre repeater operation) or that the infraction was being committed in all innocence, a bright member of this club got her last name and destination in Ottawa, was waiting for here when she arrived, and explained the facts of life to her. He didn't say just

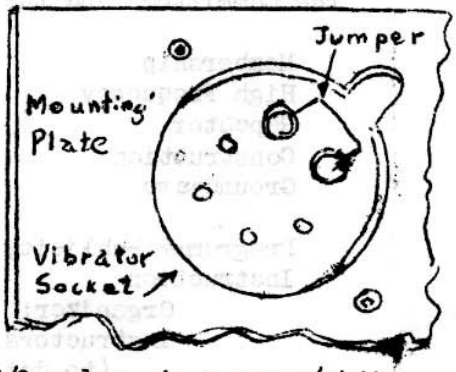
what he told her, but the next day Daddy got a long distance phone call from an OARC club official. Daddy will probably pull the rig out of the car the next time daughter uses it. Who is "Daddy"? Who is the woman in the case? Who was the quick thinking young amateur? Well, friends, like they used to say in the Army--no names, no pack drill.

So much for self-policing. We can only hope that the young lady may be persudaded to join our beginners' class. With a voice like hers on the air it would even make sideband sound sexy!

MORE ON THE CONVERSION OF THE DT-23B TO AC OPERATION

(see page 9)

This diagram shows the connections to be made to the vibrator socket. Vibrator is NOT used on AC, but can be replaced for 12 V.DC operation



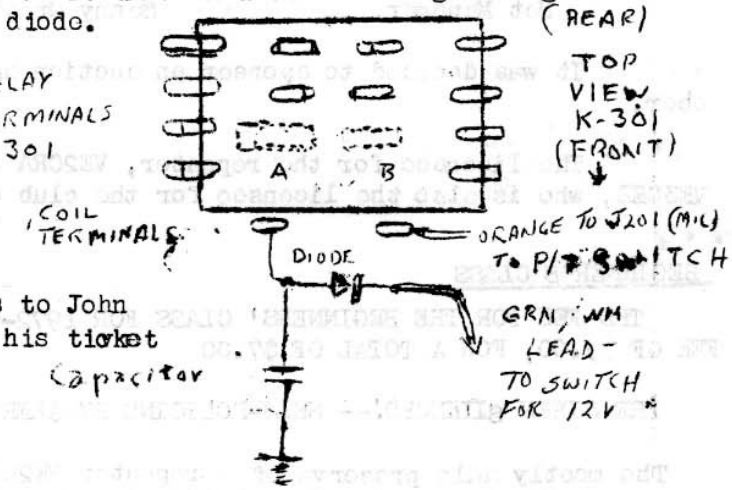
Front view of vibrator Mounting Plate

Jumper is between hole 1 and 6, the large ones.

On most sets the input 12 v to actuate relay K301, the C/O relay, is a green/white wire. Lift this off at the terminal on the relay and insert the diode between the wire and the relay terminal, soldering the latter to the terminal.

Connect the smoothing capacitor from the terminal to ground. The diode is shown connected so that mobile operation may be resumed in a car with negative ground. For positive ground cars, reverse the diode.

(Some DT23B sets have slightly different terminal arrangements with the grn/wh lead on terminal "A" and the orange one on terminal "B" shown in dotted lines)



Credit for this easy conversion goes to John Kirk, VE3DTC's son, who should have his ticket by the time this is printed.

"30"

OTTAWA AMATEUR RADIO CLUB
1973
MEMBERSHIP RENEWAL

Complete this form and mail it along with a $5 cheque payable to:

"Ottawa Amateur Radio Club"

Mailing Address:
Membership Chairman
Ottawa Amateur Radio Club
P.O. Box 8873
Ottawa Postal Terminal
K1G 3J2

Your Name _____ _____
Call

Your Address _____

Postal Code _____ Telephone _____ _____
Home Business

Please check the following:

	NO	YES
I have an amateur Grade Licence		
I have an advanced amateur Grade Licence		
I am active on SSB		
I am active on AM		
I am active on FM		
I am active on CW		
I am active on RTTY		
I am active on VHF		
I am active on SSTV		
I am an ARRL Appointee/Official		
I own an emergency power generator		
I have a mobile station		
I have a hand carried portable station		
I am a member of ARRL		
I am a member of RSO		