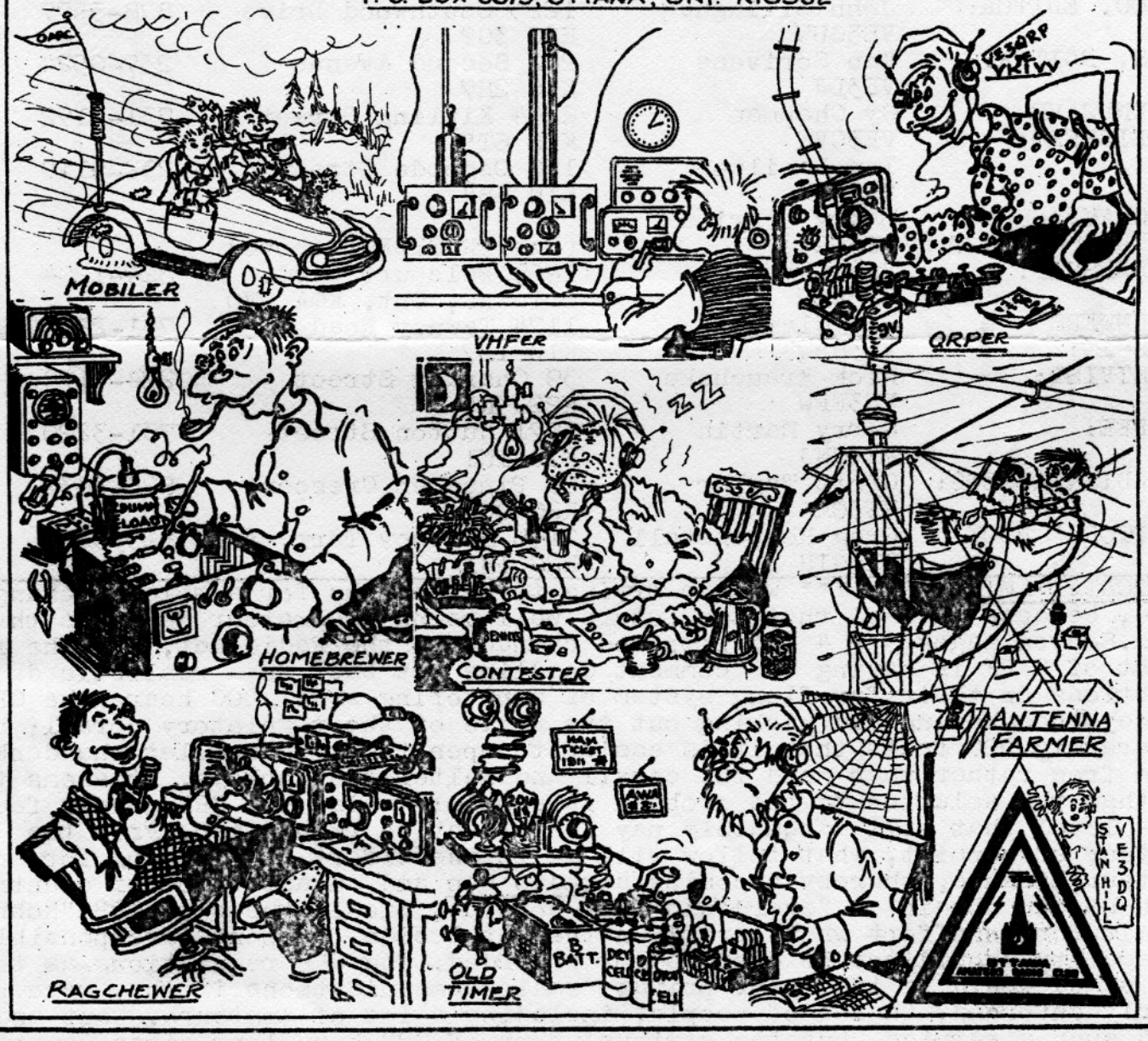
NOV 74


# THE GROUNDWAVE

THE OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB
P. O. BOX 8873, OTTAWA, ONT. K1G3J2




**1975 RSO CONVENTION - SKYLINE HOTEL, OTTAWA - OCT. 3 & 4, 1975**

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|---|---|---|---|
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EDITORIAL EMISSIONS: *** We are trying to be serious for a welcome change here, because we feel that the future well-being of Amateur Radio is threatened. See on pages 3 & 4 DOC proposed changes to the Radio Act, and the foresight of CARF in having the comment deadline set back to a realistic date. Doubtless on their far-flung system of monitoring stns., DOC hears the GRS "donkeys"* hee-hawing and kicking out the rails of the regulatory corall; but apparently DOC feels that it is easier to open the gate and let the donkeys roam free rather than mend the corall and halter the donkeys. It seems to us that the solution to the problem is simple;- raise the GRS permit fee to a level that will adequately pay for effective regulation. From the Amateur standpoint, what fellow will go to the effort of studying for an Amateur License, thereby becoming a radio man and an asset to our country, when he can obtain an "ever'thin'-fer-nothin', pie-in-the-sky" GRS "hobby" permit for no effort whatsoever? On the moral side, rampant, irresponsible illegality should not be condoned or rewarded. The GRS regulations as they now stand would be ideal for private radio communications if they were properly enforced;- a lot of people, including a lot of Amateurs, want and need such a service, but the serious users of GRS have long since departed in disgust. As a former user put it, "It would be funny if it wasn't so tragic!" We believe that the present regs. should stand;- but enforced! If a person wants "hobby type" radio, Amateur Radio fills the bill. Any reasonably industrious and intelligent person can obtain an Amateur license.

* "Donkey" ~ CB lingo meaning "Lid".

## MINUTES OF MEETING

The regular monthly meeting of the Ottawa Amateur Radio Club was held in the auditorium of the National Research Council on Wednesday, 2nd of October 1974. The meeting was called to order by the President at 2000 hours.

Among the visitors identifying themselves were VE7ATU, VE7DB, VE3CDM(?), VE3DIF, VE3GXU and VE3CYM.

As the first item of old business, the President stated that he had followed up on the idea of a dinner suggested during the last meeting. After outlining the various costs, the various amenities offered, etc., it was moved by VE3DY (Gord) and Seconded by VE3AUM (Ron) that the club hold a dinner at the Embassy West hotel on the Fifteenth of November 1974. CARRIED

The recent "Operation Shinerama" was then brought to the attention of the meeting. Mr. Norm McLaughlin representing the Ottawa U. spoke briefly of the operation and the excellent monetary results attained with the assistance of the communications supplied through the club. He expressed the appreciation of the organizers of the drive. He went on to note that the repeated successes of Ottawa with the assistance of amateur communications had not gone unnoticed by the National Committee (or was it the Provincial Committee?). At any rate He and our own VE3GSA ( ave Parks) were to visit other universities around the province and outline the organization of the Ottawa U. drive.

Committee reports

Membership:- Vic (VE3DEP) pointed out the membership application form on the back page of the Ground Wave and requested that members submit their renewal dues together with that form either at the meeting or via mail.

Nominating:- Gord (VE3DY) outlined the activities of his committee and requested that members be receptive to his committee when they are approached in the very near future.

One final bit of old business was tabled - the club auction will be held on October 19th (regardless of the controversial dates that have been mooted via rumour, media etc) as was announced in the last issue of the Ground Wave.

New business was commenced with the introduction of the Editor of the GW, Stan VE3DQ. Stan outlined the financialoutlook besetting the GW staff and requested that their budget be augmented in the amount of $250.00. It was moved by VE3CRX (Larry) the the GW budget be raised by $250.00. The motion was seconded by VE3LJ(Ken). CARRIED

The meeting was turned over to the area ARRL AREC co-ordinator Larry VE3CRX. Larry outlined two forthcoming events that would like to have communications assistance. He requested that the members who are equipped to render assistance to be ready to profer that assistance when contacted. Larry also showed several items of AREC promotional material that was available to AREC members.

The President announced that the club station VE3RC was now under the sponsorship of VE3UD, Bud Punchard. He emphasized that all activities that would be operated under the club call must in all instances have prior permission from Bud.

The latest addition to the roster of RSO delegates for this area was introduced in the person of none other than Ron Belleville VE3AUM. Ron announced that he would be attending the convention in Hamilton and that he was prepared to raise any questions at the delegates meeting that Ottawanians might have for the RSO.

Doug, VE3CDC gave a short report on CARF activities.

An invitation to participate in the 1974 Boy Scout "Jamboree on theAir" on the 19th October was extended by Glenn VE3GWY

The business of the evening being completed, the President introduced the speaker for the evening, Larry Kayser VE3QB. Larry gave a most interesting presentation on the amateur satellites which have been launched, the next one to be sent up, some of the personnel working on them, some of the problems they have experienced and showed some excellent slides of these persons at work and of the oscars in their various stages of completion. The applause that followed Larry's talk was indicative of the appreciation of the membership. The other Larry, our President, presented the speaker with a small token of the club's appreciation.

The meeting closed at 2200 hours.

Henry Harley,
Secretary

- * * * -

NOVEMBER MEETING

Time and Place: Wednesday, November 6th, 1974. 8 P.M.
National Research Council, Sussex Drive

Program: Tom Atkins VE3CDM of Toronto will give a talk on Fast Scan TV with slides. We hear that Tom will be residing amongst us soon. It promises to be a most interesting and instructive program so come out and welcome our guest. Last ATV in our area was SSTV with Syd Horne VE3EGO. Gerry's Prima Coffee as usual! CU there!

CARF - Most Important

Ottawa, August 30 (Carf News Service)

PROPOSED CHANGES TO REGULATIONS

The attached extracts from the Canada Gazette are proposals for changes to the Radio Regulations Part II. The wprdings of the proposed amendments are, however, not set out; ... only the intent.

The one on the GRS would permit its use as a "hobby band" utilizing skip communication and a form of high gain antenna not now permitted.

Due to the complexity of the proposal on the removal of receiver licensing it is presented as it was received. It apparently removes some of the requirements for licensing receivers capable of receiving over 138 mHz, such as the popular AM/FM/PSB/Weather "rice-boxes" which many Amateurs us as 2 meter monitors.

Further study of the proposals and consultation with DOC may enable a clearer picture of the receiver licensing amendment to be printed in "The Canadian Amateur" for October.

The Federation considered the closing date of October 17 for comments as unrealistic and has asked for an extension to December 15, 1974.

If Amateurs or Amateur organizations intend to comment to DOC, the Federation would appreciate copies being sent to Box 356, Kingston, Ont. in order to gauge the reaction of the Amateur fraternity and to have reference material for any representations by the Federation on their behalf.

Credit - CARF News Service.

Ottawa, October 10, 1974 (CARF News Service)

COMMENT DATE ON GRS AND VHF RX REG. CHANGES EXTENDED

The DOC, at the request of your Canadian Amateur Radio Federation, has extended to December 15, 1974, the closing date for comments on the proposed changes to the General Radio Service (GRS/CB) regulations and the regulation concerning the licensing of receivers capable of 138 mHz es above. The proposals would permit hobby and skip operation by GRS permit holders. The other change would remove the requirement for licensing certain receivers with 138 mHz and up capability, notably the "rice-box" variety.

-Credit - CARF News Service.

## DEPARTMENT OF COMMUNICATIONS

### RADIO ACT

Notice is hereby given that it is proposed to amend section 6.(2) of the General Radio Regulations, Part II, made under the Radio Act.

Section 6.(2) prescribes the class of radiocommunications in addition to broadcasting, if transmitted on frequencies below 138 MHz, which may be received by radio apparatus exempted from licensing, and includes: any radiocommunication of which the reception is not for the purpose of carrying on an undertaking, enterprise or the performance of a service; any radiocommunication transmitted by amateur radio stations or a general call to all stations; any other radiocommunication that is not an intercommunication between radio stations operated by police or fire departments, or by ambulance, towing or other emergency services.

The proposed revision would have the effect of exempting from licensing, every radio receiving apparatus capable of receiving broadcasting, if it is not part of an organized radiocommunication system, defined as two or more stations cooperating for a specific purpose as a result of an arrangement or understanding between the persons who established the radio stations.

Any manufacturer, distributor, importer, through an association or otherwise; any consumer or user organization or group and any interested person may make representation concerning this proposal to the Director, Operations Branch, Attention DOS-P, Telecommunication Regulatory Service, Department of Communications, 100 Metcalfe Street, Ottawa, K1A 0C8, before October 17, 1974. All representations must cite the *Canada Gazette*, Part I, and the date of publication of this Notice.

Dated at Ottawa, this 8th day of August, 1974

R. R. B. HOODSPITH
*Director General*
*Telecommunication Regulatory Service*

### RADIO ACT

Notice is hereby given that it is proposed to amend certain sections of the General Radio Regulations, Part II, that are made under the Radio Act and applicable to the General Radio Service.

Section 70.(1), which restricts the Department to the issuance of General Radio Station licences for three year periods only, lacks the necessary degree of administrative flexibility for the effective control and administration of the General Radio Service. Section 73.(1)(*b*) prohibits two-way radiotelephone communication between stations licensed in the name of different licensees, including United States Citizen Radio Service Stations whose licencees have been authorized by the Minister to operate them in Canada, unless the activities or personal affairs of the licensees concerned are of mutual interest. Likewise, section 74.(2)(*f*) prohibits the use of licensed stations for transmissions directed to any person or station beyond the ground wave coverage range of the station. Representations have been received that those provisions are unnecessarily restrictive.

Consequently, proposed amendments would 1) provide, in section 70.(1), for the Department to issue General Radio Station licences that are valid for less than three years; 2) delete the mutual interest requirement and the ground wave coverage limitation. The effect of the latter would be to permit long range (skip) working and hobby type communications. Additional sections would be included to limit the permissible D.C. power input to the anode or collector circuit of the transmitter amplifier stage supplying radio frequency energy to the antenna to five watts or, alternatively, the r.f. carrier power output to three watts, in either case using an antenna with maximum gain of 6 dB; and, add a provision that would prohibit malicious interference with the communication of another station operating in the General Radio Service.

Any association, organization or group and any interested person may make representation concerning the proposed amendments to the Director, Operations Branch, Attention DOS-P, Telecommunication Regulatory Service, 100 Metcalfe Street, Ottawa, K1A 0C8 before October 17, 1974. All representations must cite the *Canada Gazette*, Part I, and the date of publication of this Notice.

Dated at Ottawa, this 8th day of August, 1974

R. R. B. HOODSPITH
*Director General*
*Telecommunication Regulatory Service*

## REACTION IN U.S.A.

## CANADA PROPOSES HOBBY-CB!

*Legalized skip also proposed.*

The Canadian Department of Communications dropped a bomb on the FCC with its recent Notice to amend their General Radio Station (the Canadian counterpart of U.S. CB) regulations to permit hobby use of the 27 MHz band and legal skip contacts. The full text of the proposal was published in the Canada Cazette on August 17th (similar to the U.S. Federal Register).

The DOC recognized that it could not stop skip and other hobby use of the GRS band and bowed to the pressure of the users. What will the FCC do about this?

This could be one of the most serious blows to the development of amateur radio yet. If the FCC should eventually follow suit – and they will be hard put not to – the hobby use of CB seems certain to draw even further from the ranks of beginning amateurs.

Credit – 73 Hotline

## Mrs. Guardi's Day in Court – See June GW

### CB PAIR SENTENCED

A woman in Chicago complained to the FCC about two CBers using obscene language over the radio and from then on her life was made miserable. She claimed that they killed her dog, threw a brick through her window, flooded her with obscene phone calls threatening rape and mutilation, attacked her on a bus and stole her car keys and purse, stole her car and smashed it, stole and vandalized her son's car, smashed her in the face with a brick when she answered her door, threatened her life if she went to court, had all sorts of food and services delivered to her home, etc.

The CB pair were tried and found guilty – the punishment was 18 months of court supervision to make sure they didn't continue the harrassment. No fine, no jail, no restitution. The CBers said they had sold their CB gear.

Credit –
73 Hotline

While you are mulling over the above, here is a little item that might tickle your fancy, gleaned from the Doug Llewlyn program on WTOP, about just rewards, credit, and the rightness of things. Justice will prevail!

THE NEW ADVENTURES OF LITTLE RED RIDING HOOD

I'm sure you have heard the story of Little Red Riding Hood, as she planned a trip to her grandmother's house and her conversation was overheard by a wolf. By taking a short cut through the strawberry patch, the wolf arrived at the grandmother's house and had sufficient time to devour the grandmother and put on her nightgown and get into bed. When Red Riding Hood arrived, the wolf made advances toward her and she ran screaming from the house into the woods. A woodsman nearby heard her cries for help and came to her aid. With one swing of his axe he slew the wolf. The townspeople proclaimed the woodsman a hero.

However at the inquest the following day, the County Coroner determined that the wolf had not been properly advised of his rights and, in addition, had never been given the opportunity to surrender. The verdict of the County Coroner was to hold the woodsman for trial.

The prosecutor opened the trial by stating that the wolf was not guilty of murder as he was merely doing his thing as he devoured the grandmother as this was his natural instinct. Several witnesses were called to confirm this fact. It was also proved that the wolf was only trying to make love, not war, with Little Red Riding Hood and this is not a crime in the County of Woods.

Under examination by the prosecutor, Miss Hood had to admit that the wolf seemed to be as much interested in her basket of goodies as he was in her as a person. She also admitted that the Red Riding habit had a miniskirt, thereby possibly enticing the wolf unduly, At this point in the trial the prosecutor entered a formal charge against Miss Hood.

After deliberation of some two hours, the jury found the woodsman to be guilty of aggravated assault with entent to kill and he was sentenced to 20 years to life.

Miss Hood was convicted of lewd conduct, inciting to riot, and was given the maximum sentence the law would allow.

Possible charges against the deceased wolf of murder, trespassing and female impersonation were dropped as it was pointed out that he had more than paid for these minor infractions with his life.

Pennies were collected from the local school children to erect a magnificent statue to the wolf in the town square as a reminder that justice will prevail.

Credit - Amateur Radio News Service Bulletin

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OSCAR

Wasn't that a ZINGER of a talk on OSCAR by Larry VE3QB at our last meeting?

AMSAT-OSCAR 6 launched October 15, 1972 has now been in operation 2 years, approaching twice the lifetime originally anticipated. It has gone through its maximum and minimum critical sun periods for the second time without serious degradation. It is expected there will be some conflicts in operation between it and OSCAR 7 since orbits are planned to be nearly identical and there is some overlap in the frequencies of the three linear repeaters that will be in operation between the two satellites. Users of OSCAR 6 numbers over 2,400 from 86 countries with about 63% of the users located outside the continental United States.

Launch date for OSCAR 7 has been tentatively set by NASA for October 23rd, 1974. The spacecraft is being launched from the NASA Western Test Range as a secondary "piggyback" payload with the ITOS-G meteorological satellite and the Spanish INTASAT spacecraft. It will be ejected from the second stage of the Thor-Delta launch vehicle. Orbital parameters: 1,460 km altitude circular orbit, 102° inclination(retrograde, sun-synchronous orbit)

- * * * - Credit - AMSAT Newsletter 9/74

"What are rights? Wrongs become rights by default when strongly opposed against weak denial." ..... Joseph Goebels.

FROM the Milliwatt: NATIONAL JOURNAL OF QRPp

DEVOTED EXCLUSIVELY TO UNDER FIVE-WATT AMATEUR RADIO

## The Art of Circuit-Boarding

One of the most practical innovations that has accompanied the movement of radio technology into solid state practice is the widespread use of circuit boards in the construction of radio equipment. Several practical advantages are offered by the use of circuit boards which make them a drastic improvement over the old point-to-point wiring methods used in the past. For one thing, a completed circuit board is nearly indestructible--vibration, jostling, dropping, kicking, stomping have little effect, unless an actual part is destroyed. Hence, stability in critical tuned circuits is far better than anything achieveable with the same amount of work in point-to-point wiring. This advantage is most clearly evidence in the application of circuit boarding technique to VFO construction. All parts of the VFO circuit can be mounted on the board--including the tuning capacitor if desired--which results in an installation with only one moveable connection--the tuning capacitor, if it is not mounted on the board itself. The need for an off-board mounting of a tuning capacitor and the chance of mechanical instability can be almost totally eliminated if both the board and the tuning capacitor on mounted on the same surface of the cabinet or chassis. Secondly, economy of space is an advantage of circuit board wiring. The space of a circuit board is limited mostly to horizontal space or area, while the vertical requirements of the usual circuit board are almost always under one inch, including space from the mounting surface to the top of of the highest part on the board. The actual mounting on the chassis or cabinet requires only four screw holes instead of the numerous drillings necessitated in point-to-point wiring. Further, the need for a chassis as opposed to merely a cabinet is eliminated--the finished board can be mounted directly on the cabinet, and all sides of the cabinet can be utilized. Similarly, just about any degree of miniaturization is possible--if you're one of the oldtimers and your fingers aren't as agile as before, the circuit can be spread out as widely as is necessary, while those with manual dexterity can jam everything into a square inch i desired.

The greatest advantage of the circuit board with regard to the actual soldering of parts is, of course, the elimination of the need for connecting wires etc. The connecting wires are replaced by a strip of copper on the surface of the board, and the part is merely inserted in its proper holes and soldered. The same characteristic contributes to the great degree of isolation of stages possible in circuit board techniques--the connecting strips of copper present to each other an extremely thin--on the order of a 64th of an inch--cross-section for interaction, with the greatest area of the connecting strips parallel to each other and on the same plane. This is a decided advantage particularly in the wiring of RF stages, such as are encountered in a transistor transmitter where a good degree of isolation is desired between subsequent stages. If one wishes to utilize the isolation possibilities of circuit boarding to its fullest, two-sided boards can be used, with the ground foil comprised on the copper on the top side, and all electrical connections made to strips on the bottom side of the board. In this techniqu, the parts themselves are shielded from associated circuitry.

There are some practical techniques that one ought to be know about before getting started in circuit boarding, and this paper is intended to provide a complete summary of everything involved. One question that a reader usually raises at this point is: but in view of all the time involved, aren't circuit boards really useful only for mass-production? As you will discover, the amount of time taken for an entire circuit board operation involving, let us say, three stages, will be considerably shorted than that involved in putting the same three stages together by the old point-to-point method--once you get the knack of circuit board technique. You will find that soldering time is cut by 75%, a major saving in itself.

The design and construction of a circuit board falls into three basic steps: first, acquiring the tools and parts used; second, converting the symbols of a schematic into a circuit layout of proper proportions; drilling mounting holes, connecting them with some sort of etch-resistant material, and etching away the unwanted copper; third, wiring, or soldering in this case. The following outlines the procedures for each of these steps.

First, the major necessity for neat and easy circuit board construction is a drill bit of proper size for the wire leads of the components to be used. This usually requires a bit about the size of #24 wire guage, the usual size of component leads. Although this size of bit is not generally available, it can be found in many hobby shops that carry Exacto hobby tools. Drill bits can be purchased individually from American's Hobby Center, 146 West 22nd Street, New York, NY 10011 for the following prices: #50-80, 25¢, #30-49, 30¢, #25-29, 35¢, #10-24, 40¢ (p. 127 current catalogue). It is wise to purchase a couple of convenient sizes: #60, #50, #40, or so. Usually a standard hand-held electric drill serves adequately; it is difficult to manage a manual drill with the very small drill bit, but can be done with care. Next, circuit boards and etching materials are available just about everywhere--the local radio supply store will have both; or, Kepro circuit board kits can be order from most supply houses such as Allied-Radio Shack, Burstein-Applebee, Newark Electronics, Standard Kit Type S-101A for $3.95, which includes 2 3x6" boards, resist, and etchant solution. Similarly, boards may be purchase individually, and etchant and resist likewise. One important practical hint: no one has mentioned the most readily available and easiest-to-use resist--the common permanent ink felt-tipped marking pen. These are available with fine and broad tips, and cost 49¢ in any drug-store or stationary store, or other. Permanent ink type is required. An extremely neat job can be done with these pens and they function as well as any type of resist. So much for the materials involved. It might be mentioned that there is little or no hazard involved in using the ferric chloride etchant--as long as one keeps it out of the eyes. Use it only in plastic containers for the etching process.

Next, parts to be used for the circuit can be found through several sources which supply devices designed for miniaturized applications. Newarl Electronics, 500 N. Pulaski Road, Chicago, Ill 60624 is the best source of all parts. Newark carries the entire line of Elmenco subminiature and miniature trimmer capacitors which can be mounted directly on the circuit board with little use of space; likewise this outfit carries the entire line of Elmenco silver dipped micas of the 100 WVDC range that are very small and extremely useful in circuit boarding. Typical lead spacing on these CM05FD series micas is 7/32" all the way up to 620 pf; width is anywhere from 1/8th to 1/4th inch, and height from 3/32" to 3/8th inch. Similarly, Newark (and others) handle the entire line of Sprague subminiature disc ceramic capacitors for by-pass functions; some typical sizes and prices: Stock # 18F933, Sprague #TG-S10, .01mfd (100WVDC), 15¢, 18F937, Spr. # TG-S50, .05 mfd, 30¢. Lead spacing on these subminiatures is 1/4 inch, and the bodies are 1/4 inch diameter. Standard .001 mfd discs are of the same size, so it's not necessary to go into subminiature ranges for these. But again, if you are not particularly interested in miniaturization, regular size parts can be used. Several outfits, including Burstein-Applebee, PolyPaks, PO Box 942, South Lynnfield, MASS 01940, and John Meshna (see regular ads in most ham magazines) carry subminiature electrolytics that are about 5/16 inch diameter,15 WVDC range, and are priced quite low. Resistors of both the 1/2 and 1/4 watt sizes are generally available everywhere--the 1/4 watt size mounts in holes separated by 5/16 inch. In general, by juggling regular supply houses with surplus outfits, one can acquire the entire range of parts at a decent cost.

Another innovation that has appeared in recent years in the toroid inductor. Most solid-state projects published nowadays utlize these valuable devices. The cheapest source of toroid cores is Amidon Associates, 12033 Otsego St., North Hollywood, CAL 91607. The two cores most used in amateur applications are the T-68-2 (3/4" O.D.) and the T-50-2 (1/2" O.D.), respectively 60¢ and 50¢ each (minimum order $3.00). Indiana General cores of more costly ($1.25 each) and available only through HAL Devices, Box 365a, Urbana, ILL 61801. Several excellent articles dealing with the use of toroid cores have been published: the best to date is Hank Olson, W6GXN, "How to Use Ferrite and Powdered Iron for Inductors," ham radio, Vol. 4#4 (April, 1971), 15-27. This article provides a survey of all types of cores, and in addition provides sample inductances for given cores and wire sizes and number of windings. Two lengthy tables are included on the Amidon toroid cores. More specific and accurate tables can be obtained directly from the manufacturers.

So much for the required tools, parts, and their sources. In the next part of this paper, the actual conversion of the schematic to a practical circuit board design will be covered, and the W9IIL VFO featured in the April issue of The Milliwatt will be used as an example. Other, more complex, circuits will also be covered eventually.

Ade Weiss K8EEG/Ø

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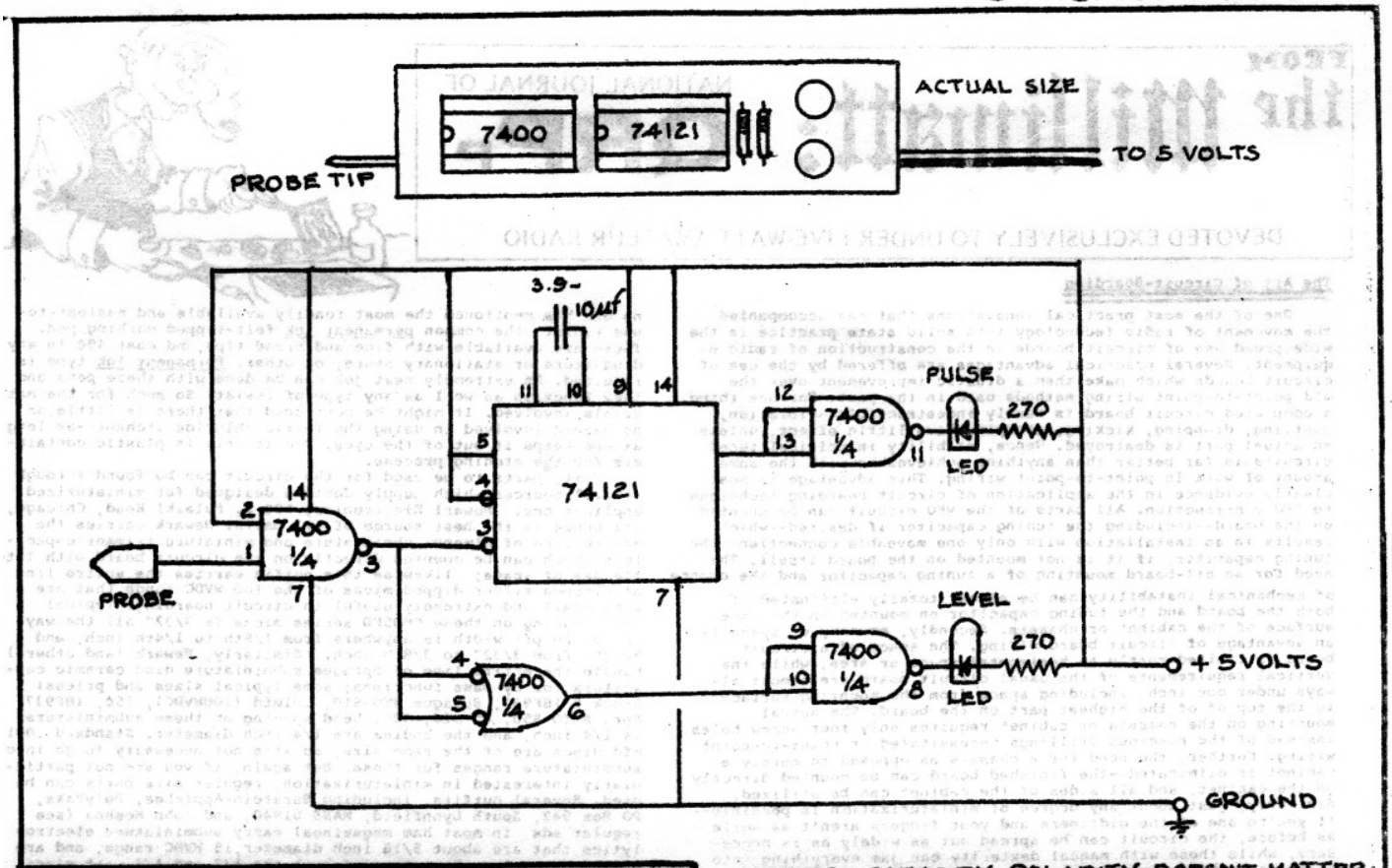
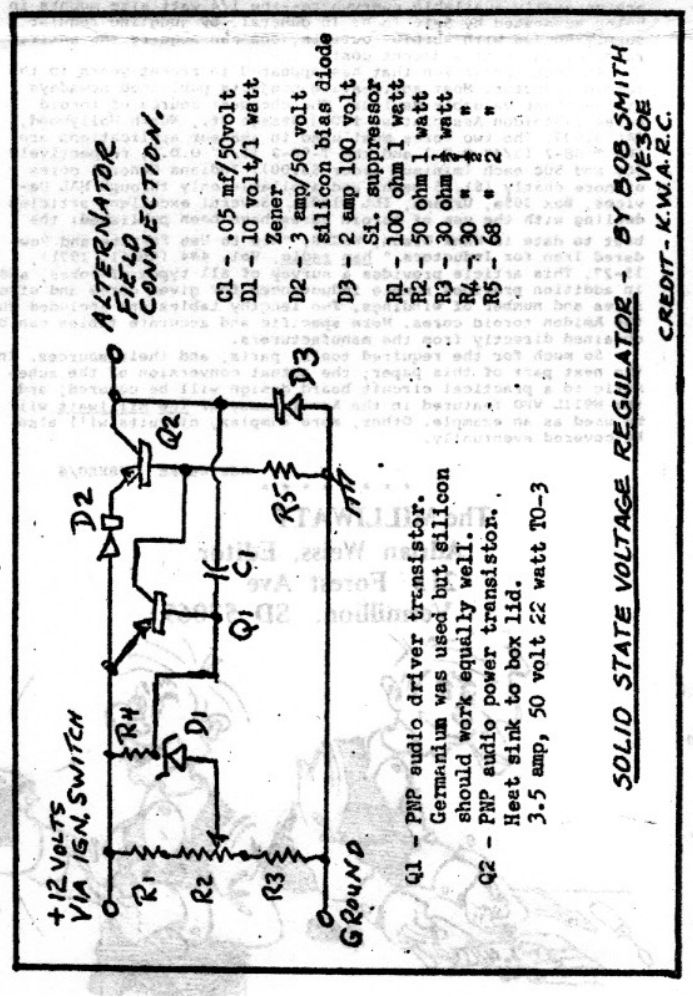
**The MILLIWATT**
**Adrian Weiss, Editor**
**213 Forest Ave**
**Vermillion, SD 57069**




NOTES: CAPACITY POLARITY DOESN'T MATTER. CAPACITOR IS MOUNTED UNDER THE BOARD.

## LOGIC PROBE WITH PULSE CATCHER

BY GREG. HEPPENSTALL VE3GIH

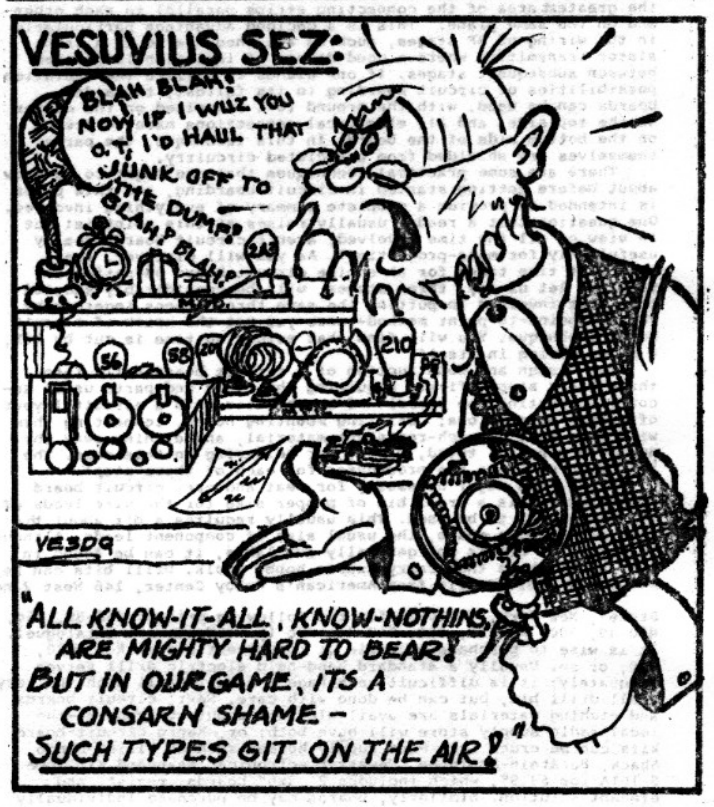



C1 - .05 mf/50volt
D1 - 10 volt/1 watt Zener
D2 - 3 amp/50 volt silicon bias diode
D3 - 2 amp 100 volt
R1 - 100 ohm 1 watt
R2 - 50 ohm 1 watt
R3 - 30 ohm ½ watt
R4 - 30 " " 2 "
R5 - 68 " "

Q1 - PNP audio driver transistor. Germanium was used but silicon should work equally well.
Q2 - PNP audio power transistor. Heat sink to box lid. 3.5 amp, 50 volt 22 watt TO-3

SOLID STATE VOLTAGE REGULATOR - BY BOB SMITH VE3OE

CREDIT - K.W.A.R.C.



Logic Probe with Pulse Catcher

See the Circuit page for the circuit diagram. Kits are available if you wish to go the kit route. Testing: With power on and the probe tip not connected, the "level" led will glow, indicating a "High" input. With the probe touching a ground, the "level" led will go off indicating a "low" level. An input transition from low to high will cause the "pulse" led to flash for about 1/10 second. See me. Greg. Hepenstall VE3GIH

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Solid State Voltage Regulation - By Bob Smith VE3OE

You read in last month's GW of Bernie VE3SH's misfortune with his IC22 due to a defective voltage regulator. By sheer coincidence, it happens that the K.W.A.R.C. publishes in their latest Bulletin, which we shamelessly swipe for the edification of our readers. Bob Smith VE3OE says:

"The "Old Eggcrate" went QRT right in the middle of one of his usual 4.9 minute mobile transmissions. Uh-oh fuse blew eh? What's this? Battery voltage in excess of 16 jolts! "cotton-pickin' #@@¢(%)%# mechanical regulator anyway" sez Bob. Pulling the wires out allowed him to drive home on the battery, and more important, get back into the QSO.

Some frantic researching and midnight product development resulted in the solid state voltage regulator. (No contacts to arc, burn, stick and blow rigs off the air.)

Layout of parts is not critical, and an Armaco utility box "UB" was pruchased for 79¢. Inexpensive surplus Polypaks transistors helped sustain OE's reputation for thrift. Now permanently mounted in a Volvo, this regulator has been tried with a Chryler 35 amp alternator. R2 sets the max. voltage. Start low, and with a presision voltmeter across the battery terms, run the engine at fast idle to set regulator for 13.8 to 14.0 volts.

Credit - K.W.A.R.C. Bulletin.

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OTTAWA AREA NEWS:

The OARC Social Dinner will be held on Friday, Nov.15-7.30 PM at the Embassy West Motor Hotel, 1400 Carling Ave. $6.75 per person. Get your tickets from VE3's UD, CVK, AMK, CRX, BR, DQ, BNO, CNJ, and GRJ.

The OARC Fall Auction: A big success; full report later.

West Island Radio Club Auction: Valois United Church, Nov. 2, 1974. Recording of items starts at 9 AM. Auction proper from 12 noon to 5.00 PM.

STAFF where are you? Are you vacationing with the penguins in sunny Antartica, or girl watching on Pago Pago? Or has there been not enough wind to run that transistor mill, and you're turning the crank yourself? Looking forward to hearing from you next month!

REPEATER NEWS 450 mHz:

There are about 25 or 30 Accent 450 rigs in the Ottawa area but the VE2CRA 443.3/448.3 mHz repeater is seldom if ever tripped. Currently only VE3DVH, DIH, ARS, CEC and CEZ seem to use it....How about 450 rig owners calling up VE3CDC and organizing a tuning clinic if that seems to be the problem. (They are tricky to tune).

Doug Burrill VE3CDC.

220 mHz: At the Oct. 8 Executive Meeting George Roach VE3BNO requested authority to install a 220 mHz transmitter in conjunction with VE2CRA for the purpose of supplying a repeat of VE2CRA transmissions for the users of 220 to have something active to listen to. There were no objections raised by the Executive, and it was suggested that VE3CEZ, the custodian should be contacted.

VE3OCU: The Carleton University A.R.C. now has a 2 meter repeater on the air under the call VE3OCR - 146.25/.85 mHz. It is still in the testing stage and range experiments are now being carried out. Try it.

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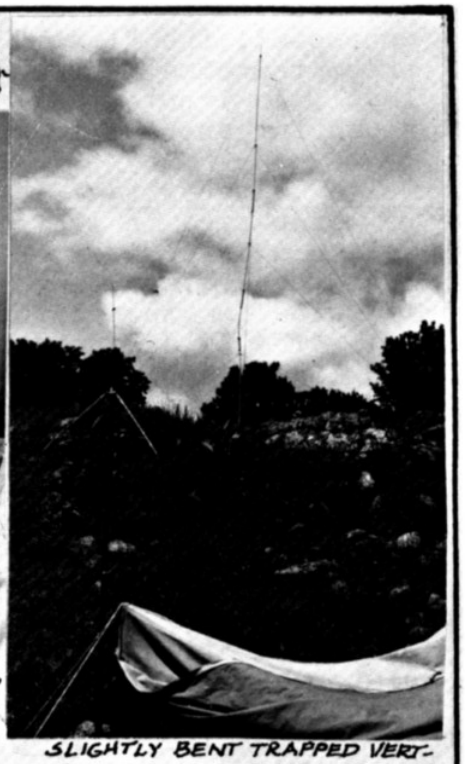
ARCOVERS: Our Pres. Larry VE3GRJ had an appendix operation at the Civic. during Thanksgiving. After discharge, had to return to overcome complications. Out now and doing fine. Mac VE3AVM had an operation recently. Improve, both you guys-...-401 es No.7 will be loaded with hams gg to the RSO Conv. Hamilton Oct.25,26,27 by the looks of things-...-Thanks to CPY/DRX/DY 73...-

# FIELD DAY 1974

CRAIG VE3EKP, JOHN VE3HAT, GERRY VE3CNJ & WHO DAT ?

WHO DAT ? & DON VE3CUZ



SLIGHTLY BENT TRAPPED VERTICAL & 2M G.P.

BUD VE3UD & COMELY LOGGER

GLEN VE3GWY

OUR PRESIDENTE LARRY VE3GRJ "SKYLINED"

LARRY VE3GRJ ON THE HIGH GROUND & GEORGE VE3BNO, OPERATOR, RIGGER & MOTOR-GENERATOR MECHANIC EXTRA-ORDINARY.

PHOTOS - COURTESY OF DAVE PARKS VE3GSA

# OTTAWA AMATEUR RADIO CLUB
## MEMBERSHIP FORM - 1975

Please enclose a cheque payable to "Ottawa Amateur Radio Club" in the amount of five (5) dollars.

NAME:_____ CALL:_____

ADDRESS:_____

CITY:_____

POSTAL CODE:_____ PHONE NO.: HOME-_____

OFFICE _____

Class of licence: Amateur_____ Advance Amateur_____

Activities: SSB_____ BANDS:
AM _____
VHF-FM _____
CW _____
RTTY _____
VHF _____
SSTV _____

| I am a: | MEMBER | APPOINTEE | OFFICIAL |
|---|---|---|---|
| ARRL | _____ | _____ | _____ |
| RSO | _____ | _____ | _____ |
| CARF | | _____ | _____ |
| RAQI | _____ | _____ | _____ |

I have a gas/diesel generator YES____ NO_____

I have a 2 meter hand-carried portable YES_____ NO_____

What are your main interests in AMATEUR RADIO: HF_____
VHF _____
OTHERS _____

What would you like to see the club do next year?