

THE 16th ANNUAL
**CENTRAL ONTARIO
 AMATEUR RADIO FLEAMARKET**

JOINTLY SPONSORED BY:
 GUELPH AMATEUR RADIO CLUB
 KITCHENER-WATERLOO AMATEUR RADIO CLUB

SATURDAY, JUNE 2nd, 1990
 8:00 A.M. to 2:00 P.M.

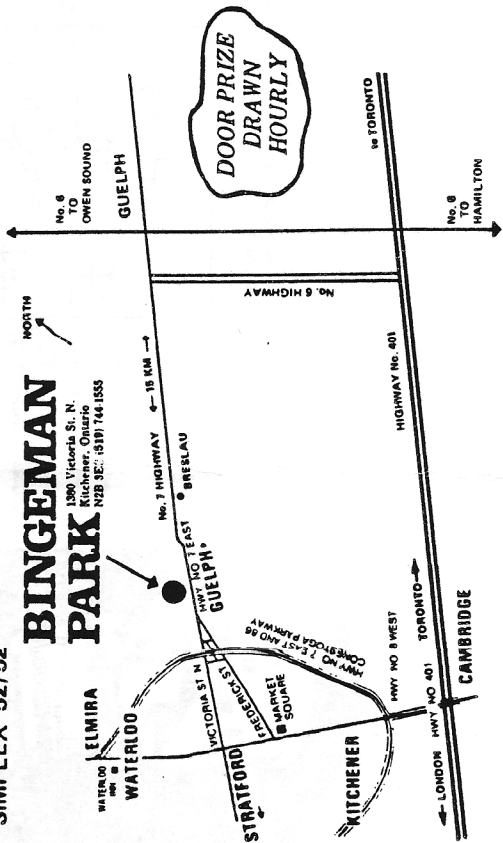
DOORS OPEN TO VENDORS **ONLY** FROM 6:00 A.M.

AT
"BINGEMAN PARK"
 1380 VICTORIA STREET NORTH - KITCHENER, ONTARIO

General Admission - - - \$5.00
 Table Rental for Vendors - \$8.00 per 8 ft. space
 (NO OUTSIDE VENDORS)
 (Children 12 Years and Under - FREE)

Talk in Frequency
 KSR - 146.37 - 146.97
 ZMG - 144.61 - 145.21
 SIMPLEX 52/52

Admission Ticket Includes
 ticket for Grand Draws



The
Hamilton

Amateur

May 1990
 (Established 1932)

HARC EXECUTIVE FOR 1990:

PRESIDENT: VE3JTC
 PAST PRESIDENT: VE3HTC
 1st VICE PRESIDENT: VE3OCY
 2nd VICE PRESIDENT: VE3SON
 SECRETARY: VE3DKJ
 TREASURER: VE3NYC
 MEMBERSHIP: VE3OQG

HARC COMMITTEE CHAIRPERSONS FOR 1990:

AWARDS & CONTESTS: VE3AAH
 HISTORIAN: VE3BLG
 PROPERTY: VE3YER
 BULLETIN EDITOR: VE3SON
 EDUCATION: VE3FHQ
 EMERGENCY COORD: VE3NYC
 FIELD DAY COORDINATOR: VE3TJL
 FLEA MARKET: VE3NYC
 HEALTH & WELFARE: VE3GFE
 PROGRAMS: VE3OCY
 PUBLIC LIASON: VE3GCP
 HOSPITALITY COORD: SWL
 CHRISTMAS DINNER PLAN: VE3OQG
 SWAP NET CONTROL: VE3DKJ
 REPEATER: VE3JTK
 TECHNICAL: VE3FHQ
 VE3DC LICENCEE: VE3OCY
 VE3NCF LICENCEE: VE3NYC
 VE3RCB LICENCEE: VE3NYC
 CODE TESTING: VE3BK & VE3BFF

Michael Spenuk 389-1760
 Dave Rypma 689-3014
 Don Graziano 560-1960
 Jim Walsh 689-6839
 Keith Johnson Autodial 19
 Paul Hazen 664-5247
 Flore Manga 560-6329

Gordon Barber 383-9161
 George Olenick 383-7338
 Norm Sanger 333-2940
 Jim Walsh 689-6839
 Glen Gibson 385-2786
 Paul Hazen 664-5247
 Cliff Toohar 547-5801
 Paul Hazen 664-5247
 Stan Bolbruch 528-4002
 Don Graziano 560-1960
 Fred Robinson 575-5197
 Gerald Crawshaw 385-2789
 Flori Manga 560-6329
 Keith Johnson Autodial 19
 Michael Spenuk 389-1760
 Don Graziano 560-1960
 Glen Gibson 385-2786
 Don Graziano 560-1960
 Paul Hazen 664-5247
 Bob Wilson 383-2054
 Norm Smith 385-5661
 Jim Flintoff

**Home Brew
 Night!**

This is YOUR night!
 That's right, you can be the Star.
 Bring in your pride and joy.
 Show us all that tinkering LIVES
 here in Hamilton.

I think Don has something else up
 up his sleeve too...

Meeting: 16 May 1990

R. Darby

FROM THE BULLETIN BOARDS - 1

HR BULLETIN 15 (PACKET CRLE015)

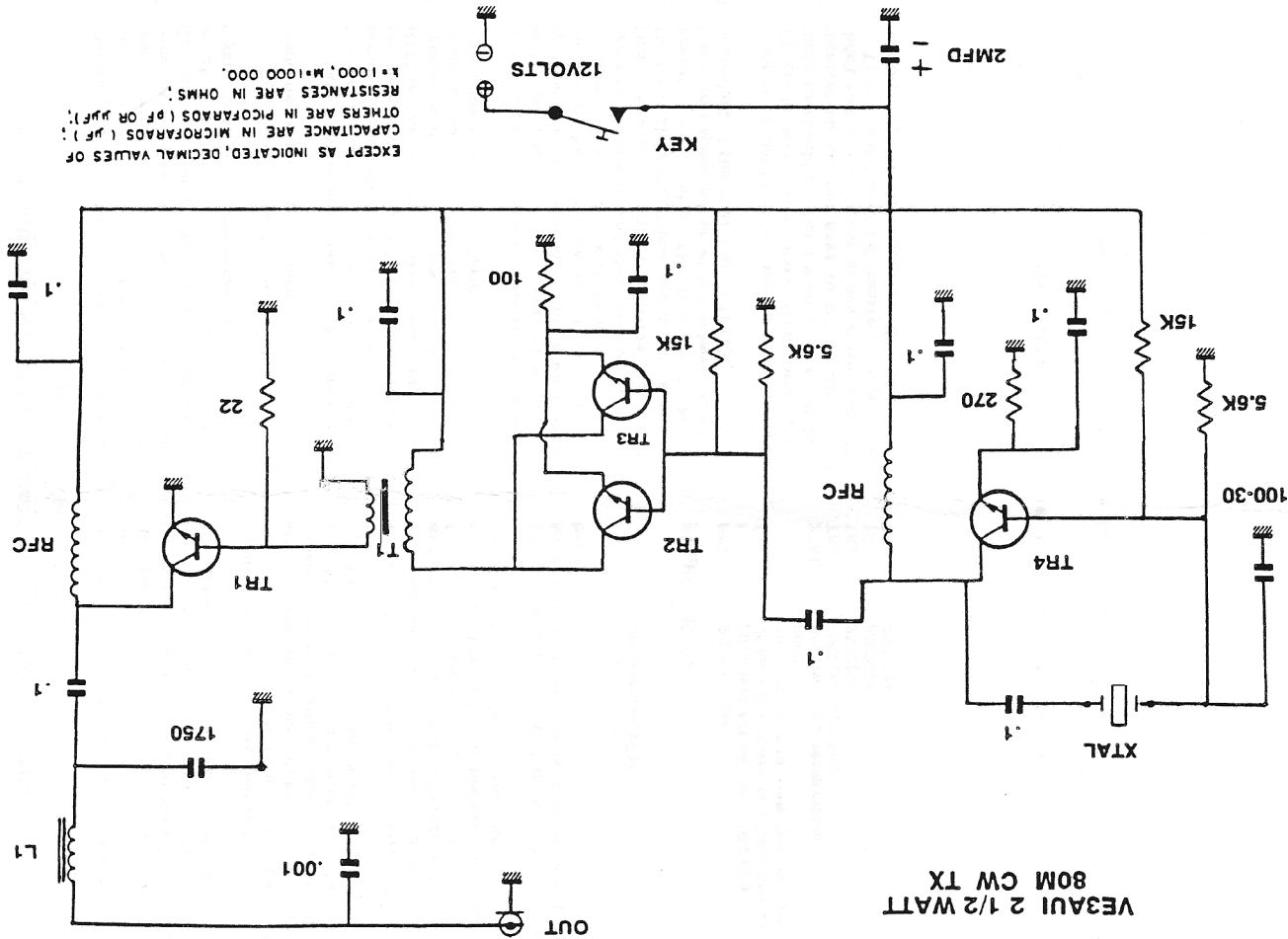
FROM CRRRL LONDON, ONTARIO,
1990 APRIL 22,
TO ALL RADIO AMATEURS BT

Item 1: The Department of Communications (DOC) is getting out of the lower-approval business. DOC will no longer be involved in approving antenna towers to ensure that they are not a hazard to aircraft. Amateurs will now obtain approval for towers (current regulations mention over 50 feet high within three kilometres of an airport, over 75 feet high elsewhere) from their nearest Aviation Group office of the Department of Transport (DOT).

Item 2: CRRRL Midwest Director Dave Snyder, VE4XN, reports that the Manitoba Amateur Radio Museum has secured a grant and is proceeding with plans for a display and operating building on the grounds of the Manitoba Agricultural Museum in Austin. Actual construction of the building should begin in May. Purpose of the museum is to collect, preserve, research and exhibit articles related to Amateur Radio and radio communications. At present, the museum has some 400 items. If you have something to donate, or are interested in supporting the museum through a founding membership, contact Dave at 25 Queens Crescent, Brandon, Manitoba R7B 1G1.

Item 3: It's not too early to be thinking about this year's Field Day, scheduled for the weekend of June 23-24. Once again, this year's rules include the provision that any Class A group whose entry classification is two or more transmitters may add one "Novice/Tech operating position" without changing the basic entry classification. For Field Day purposes only, the rules state that any Canadian who has been licensed for less than six months prior to Field Day will be considered to be a Novice to provide a means for Canadian Class A stations to take advantage of this provision. The "Canadian Novice station" must observe US Novice subband, power and mode restrictions. Why not plan to set up this extra station for your newcomers. It offers a great opportunity to introduce newcomers to HF operating while letting them help your Field Day group earn some extra points as well.

Item 4: Two notes from south of the border: The battle for 220-222 MHz goes on. Briefs for the ARRL Petition for Review will be filed with the US Court of Appeals for the DC District by June 19. Oral arguments are scheduled for October 19. The packet radio station flying on space shuttle mission STS-35, scheduled to be launched on May 09, will give each amateur who connects with WA4SIR a QSO number confirming the contact. Use this QSO number when claiming a QSL.



Club Constitution and Bylaws.

The executive feels that it is advisable to change the fiscal year of the club to start September 1. Since this relates to certain dates in the Constitution and Bylaws which would have to be changed, an ad-hoc committee was formed to review the document and consider other possible changes.

In addition to changes in dates, the committee suggested adding Roberts Rules of Order, providing for prorating of dues and clarifying responsibility for club stations. These changes were acceptable to the executive and will be presented to the club membership at the May 16 meeting.

Notice of Motion

The above mentioned changes and additions will be presented to the members for approval at the May 16, 1990 meeting. Specific details are as follows.

- General: Replace the term "Full member" by "member"
- Article 5: Change to "hold office from the first day of September"---"until the 31st day of August of the following year"---"retired on August 31st".
- Article 6: Change "elections to take place in June meeting" and "new Directors to be listed in the September issue of the Newsletter".
- Article 11: The President may succeed himself only once; the President and Vice-Presidents must have held an executive position in the club for at least one year. (Amendment made 16/1/85).
- Article 17: After "in which he is appointed" insert "unless otherwise extended for a specific period by the Board of Directors".
- Article 21: After the first paragraph add:
New members joining during the fiscal year shall have fees prorated to one tenth of the annual fees per month remaining in the fiscal year.
The fiscal year shall end August 31.
- Article 25: Add:
All club station sponsors shall be appointed annually by the Board of Directors and selected from qualified members in good standing. Sponsors shall be responsible to the Board for the proper operation of the station.
Change the last sentence to "the September issue shall contain".
- Article 28: Add:
Roberts Rules of Order of the current issue shall be the reference standard for parliamentary procedure for items not specifically in the Constitution and Bylaws.

- To list items:** VE3NCF (146.76) Tuesdays 8 pm,
OR Call Ralph (VE3BYM) 388-6146 or Keith VE3DKJ (autodial 19),
OR leave message on the VE3DC Packet BBS (145.590 MHz).
- VE3BYM RALPH, 388 6146**
- o REALISTIC PRO 2011 SCANNER, 20CH COVERS 30-54,138-174,380-512 MHZ, \$170
 - o SONY 5" B+W T.V. 12V DC \$TRADE OR NEG
- VE3KY JOHN, 416 774 6867 DUNNVILLE**
- o FT23R MICRO, TTP, FNB10 BATT PACK, WALL CHARGER, EXTENDED FREQUENCY MOD DONE \$250
- BART, 574 9004**
- o 20MEG DUAL TRACE OSCILLOSCOPE, RAMSEY ABT 2 YRS OLD, ALL MANUALS \$350 OR TRADE FOR GENERAL COVERAGE SOLID STATE RECEIVER
 - o PRO2010 20 CHANNEL SCANNER \$180
- VE3OCY DON, 560 1960**
- o TRANSFORMER SUITABLE FOR LINEAR P.S., PRIMARY 115/230, SECONDARY 2400V CENTER-TAP, 800MA \$50
- VE3ISZ FRED, 827 8425 BRONTE**
- o EVERSONIC 40CH GRS WITH MIKE, WORKS WELL \$25
 - o CANON TYPESTAR 5 ELECTRONIC TYPEWRITER CAN BE USED AS SERIAL PRINTER, EXTRA RIBBONS, MANUAL, SERIAL IBM CABLE \$100
- VE3LMS GRANT, 547 0711**
- o 80 COLUMN DUMB TERMINAL WITH KEYBOARD, HAS RS232 PORT, SUITABLE FOR PACKET \$35
- VE3EKY BERNIE, 527 7175**
- o HM2140 HEATHKIT HF WATTMETER 1.8-30MHZ, MINT CONDITION, DUAL RANGE 200/2000W PEP/AVE, SWR SETTING, REMOVABLE MODULE, WITH MANUAL \$100
- Bill, 387 3344**
- o P.S. 15-30A, 4-15V ADJUSTABLE, REGULATED \$20 NEG
 - o REMOTE MICROPHONE \$15
- VE3OCQ BOB, 549 6125**
- o CODE TAPES \$FREE TO ASPIRING HAM
- VE3SCH KONRAD, 560 1031**
- o RADIO SHACK VHF/UHF SCANNER ANTENNA \$35

VE3BJE RICK, 426 7365
 o PART GEM QUAD MISSING SPREADER FOR PARTS \$FREE TO SOMEONE
 NEEDING PARTS

VE3GTE JOHN, 519 753 1137
 o FT101E WITH SPEAKER PHONE PATCH, SPARE SET OF NEW TUBES, FAN,
 MANUAL \$425

VE3SND DON, 416 688 0465
 o ICOM IC720A HF RIG, GENEROUS COVERAGE, 2VFOs, SOLID STATE, 100W, ALL
 MANUALS \$650

VE3ANB RICH, 547 8192
 o 1988 N.A. + INTERNATIONAL CALLBOOKS \$FREE TO ACTIVE NEW HAM

The Swap Shop: Wanted.

To list items: VE3NCF (146,76) Tuesdays 8 pm,
 OR Call Ralph (VE3BYM) 388-6146 or Keith VE3DKJ (autodial 19),
 OR leave message on the VE3DC Packet BBS (145.590 MHz).

VE3BYM RALPH, 388 6146
 o SWC-1 COUPLER FOR KENWOOD
 SWP/PWR METER SW2000
JERRY, 544 7770
 o OLD KITCHEN CUPBOARD SUITABLE
 FOR SHOP OR GARAGE TO USE FOR
 STOCK + PARTS

VE3JIS JACK, 648 6443
 o ICOM 751A

VE3KYO JOHN, 416 774 6867
 o DIGICOM MODEM BOARD

Bob, 544 0376
 o FREQUENCY COUNTER TO 30 MHZ
 \$REASONABLE

VE3JSJ GORD, 575 3647
 o CASSETTE RECORDER, MECHANICAL
 TYPE, WITH MAINS ADAPTOR

Financial Statement April 25, 1990

Balance forward	\$2330.83
Deposits	75.00
Assets	2905.88
Disbursements	-336.61
Balance	2669.27

Paul Hazen, VE3JYC
 Treasurer.

HARC Plea Market

Meeting for all who want to be involved on or before Sept.15
 An organizational meeting will be held following the regular
 club meeting. Start 9.20 or earlier for one half hour.
 See you then

Paul Hazen, VE3NYC

VE3RCB Treasure hunt

When announced Tuesday evenings between the check in net
 and the swap net, VE3RCB will be operating on the HF bands.
 Only the band will be announced. When you contact the operator
 on phone or CW, aQSL card will be issued at the next club
 meeting.

Paul, VE3MYC

From the Executive meeting April 25, 1990

Norm Sanger, VE3VFR was appointed Property Chairman.

Cliff Toohy, VE3TUL reported on plans for Field Lay, He is
 still looking for volunteers.

Discussion on revision of Constitution, reported elsewhere.
 If this revision is accepted, there will be nominations at
 the May meeting and elections, if necessary at the June
 meeting for an executive to take office September 1.
 Current memberships are to December 1990. At that time
 members will have the option of paying \$15 good to Aug 31,
 1991 or \$40 good till Aug 31, 1992.

Welcome to a new member, Bill Reynolds, VE3SLZ.

May is Home Brew Month!

The Crawford Trophy will be awarded by
 HARC to a member who best exemplifies
 the spirit of home brewing - building your
 own equipment at home. Make that final
 effort now, before the summer comes,
 and finish off your gem. Then show others
 how it's done by bringing it to the May
 meeting (This month!)

- o VE3SCH KONRAD, 560 1031
- o TU35B TONE BURST ACCESSORY
 FOR KENWOOD 2600 \$REASONABLE
- o VE3BJE RICK, 426 7365
- o 2M BEAM FOR SIDEBAND
- o VE3WSW WALT, 544 0200
- o 50' RG58 COAX

COMING EVENTS:

ARRL Spring Sprint - 1296 MHz	May 10
ARRL Spring Sprint - 2304 MHz	May 17
World Telecommunications Day	May 20
Down East Fleamarket (Halifax)	May 26
CCWW PX Contest - CW	May 26-27
Quebec Hamfest (Sorel-Tracy)	June 2
Central Ontario Fleamarket (Kitchener)	June 2
ARRL June VHF OSO Party	June 9-11
Red Deer (AB) Picnic	June 17
Old Tyme Radio Operators Reunion (Orillia, ON)	June 21
ARRL Field Day	June 23-24
CARF Canada Day Contest	July 1
Ontario Hamfest (Milton)	July 1
IARU HF Championships	July 7
	July 14-15

73, DE VE3GRO @ VE3GYQ, CRRL, BOX 7009, STATION E, LONDON, ON N5Y 4J9
AR

**The Hamilton Amateur
Advertising Rates - 1990**

Issue	Year	
1/4 Page		\$15.00 \$75.00
1/2 Page		\$20.00 \$100.00
Full Page		\$25.00 \$150.00

Sizes are based on an 8.5 x 11 inch page reduced to 4.25 x 5.5 inches (approx). Arrangements can be made to produce your artwork or you can provide camera-ready copy. Note that there will be extra charges if you provide the paper (Originals are photo-reduced and printed as part of the Bulletin).

One year is 10 issues (January to June and September to December).

THE VE3AUI TWO and ONE HALF WATT 80 METER TRANSMITTER

Bill Skidmore, VE3AUI

The diagram accompanying these words shows the result of a little experimentation in QRP transmission at VE3AUI. You will see that the transmitter looks much the same as all the other QRP articles that you have read. After all, how much variation can there be in a crystal-controlled, three stage rig?

There are some features, however, that might be deserving of comment.

1. I hate to make inductors! Especially when the article specifies some kind of Amidon inductor that I don't have. So, where possible, I use ordinary pi-wound RF chokes, marked as RFC in the diagram. These should be 2.5 mH chokes, or if you don't know what they are, they ought to look like they would be self resonant well below the 80 meter band.

2. I also hate hunting all around for values of small parts to fit the contents of somebody's QRP article. You will note that in all but four instances, the capacitors used are 0.1mfd. The resistors have to vary a little more, but there are still duplicates, and the rest are not hard to find. Likewise, with the transistors. All but the final are 2N2222A. These are 35 cents each at Forest City Surplus. The final could be the transistors specified, or what you have. The ECG equivalent of the final is an ECG 123.

3. Parts T1 and L1 caused me the most problems. T1 could well be a tuned transformer, and probably should be. But I want to box this little monster up and not have to mess with it, so I didn't end up with tuning at any stage. The point at T1 is to get lots of RF transfer, and achieve a healthy step down in impedance. If you can't

duplicate what I have specified, find a good core, ring or straight, and experiment. I have an idea that ferrite loopstick cores from transistor AM radios would work here on 80 Meters. If you use a ring core, space the turns of the secondary around the full circumference of the ring.

L1 and the two capacitors near it form the filter that this thing requires to stop it radiating RF all over the spectrum. Make up the 1750 pf capacitor by paralleling values together. Some kind of tuned circuit in this area of the circuit might also function, if you want to try it.

4. You will note the parallel drivers. This is a lucky accident. One transistor here draws about as much current to the driver stage as two, but I found that by paralleling two 2N2222A's, I got more drive. I think this is because two together match into the final better than one.

This is not a fancy rig, but in a short while, I have worked both coasts and several places between.

Happy Building,
Bill Skidmore, VE3AUI

BUILDING NOTES

RFC	2.5 mH Choke
L1	20 turns of #24 wire on FT50-2 core.
T1	35 turns of #24 wire on FT50-2 core. Link is 10 turns of #18 wire spaced over the primary.
XTAL	Any 80m fundamental crystal
TR1	MPS U02 or 2N2102
TR2	2N2222A
TR3	2N2222A
TR4	2N2222A

Bulletins from other clubs come in handy when local sources run dry.

These three pages are from the London ARC.

THE HAMILTON AMATEUR RADIO CLUB

BOX 253 Hamilton Ontario Canada L8N 3C8.

CLUB MEETINGS:

8:00pm on the 3rd Wednesday of each month except for July & August (special arrangements are often made for the December meeting as well), in the Nash Auditorium, Chedoke Hospital. Non-members & friends are welcome - coffee and donuts on the house!

EXECUTIVE:

Meets at 1930 on the fourth Wednesday of the month, except June & July, in the Radio Room, Red Cross, 400 King Street East.

STATION:

An emergency radio station is maintained in the RED CROSS, HAMILTON BRANCH (400 King East).

MEMBERSHIP:

\$25.00 per year with a common renewal date of January 1. Included is a subscription to the club bulletin. Additional Family Memberships (no bulletin) \$1.

EDUCATION:

Informal meetings may be held in the Radio Room, Red Cross Building 400 King St East to help those who want to take their Amateur Licencing tests. Call Glen, VE3FHQ (416-385-2786 in Hamilton) for more information.

REPEATER:

VE3NCF. Located on the Hamilton escarpment it is available for use by any amateur. Input: 146.16 Mhz. Output: 146.76 MHz. Part of the VE3RPT Link system. Contact a member of the Club Executive for information concerning Emergency use, Autopatch, Mail-boxes, Links etc.

FIELD-DAY:

HARC operates a multi-station site during Field-Day. Contact chairman Cliff Toohar for information. His number can be found on the front page.

SWAP-NET:

Every Tuesday at 8:00 pm on VE3NCF (146.76/16) except during July & August. Contact Keith, VE3DKJ if you have items to buy or sell.

FLEA-MARKET:

Held during October each year (Thanksgiving Day Weekend). Watch for a change!!

BULLETIN:

"The Hamilton Amateur", the official news bulletin of the club, is published 10 times a year and sent to all full club members (family members share a bulletin) during the first 2 weeks of the month (except July and August). Most bulletin material is also available on the club's packet bulletin board station, VE3JSD, on 145.590 FM.

SOME LOW POWER IDEAS

Dick Moore VE3LNB

The schematic of the "Yest Pocket QRP Rig" courtesy of Bob, VE3BDM, seems to be about minimum, but it works well, at least those few I have worked with it say so. No moonbounce yet, but a chap in Kansas City gave me a 439.

So, what have I learned from this rig? - Well, lots!

1. All the parts were found in my junk box and some came as cast-offs from VE3EWO.
2. Just about anything will serve as chassis/cabinet. I used Mexican sauce tins because a) I had them and, b) they can be worked with ordinary scissors if necessary.
3. As the rig had insufficient power to more than nudge the needle of any of my SWR meters in the forward position, I wired an old meter in series with the power supply and tuned for near maximum current, approx. 60 ma., while listening with my receiver.
4. I added an "el cheapo" heat sink to the transistor.
5. A simple switch, SPDT or DPDT, is used to switch the antenna from receive to transmit. A regular antenna switch will work fine when set up in reverse.
6. To monitor your signal, there is enough RF floating around inside the can to enable your receiver to serve as a sidetone monitor. You may have to turn down the RF gain a little.
7. Crystals may be a problem to find, but shop around at flea markets and ask on local swap shops. An alternative would be to use TV colourburst crystals, which can be obtained for \$2.99 at Radio Shack. The frequency is listed at 3.579545 and this might be ok for local nets as well as the QRP calling frequency. Push-button speaker terminals will serve as crystal sockets, if necessary.
8. Patience and persistence are key words, so..... Good luck and have fun.

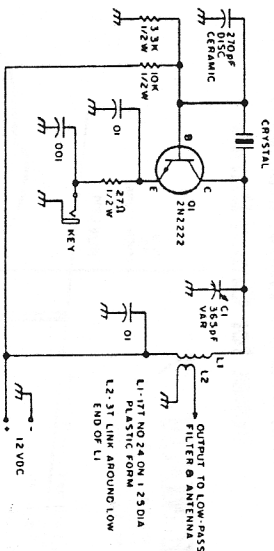


Fig. 1. Schematic. L1 - 17 turns #24 on 1 1/2" dia. plastic form. L2 - 3 turn link around low end of L1. C1 - 305 pf variable capacitor.

