

# XTAL

APRIL

1948

Vol. 10 No. 4

for the

# radio

Mr. T. G. Ling, VU6F  
105 Upper Edison,  
ST. LAMBERT, P. Q.  
October 31, 1948

# amateur



OFFICIAL JOURNAL  
THE CANADIAN AMATEUR RADIO OPERATORS' ASSOCIATION  
TORONTO, ONTARIO



*What's* **BEHIND**  
**EVERY TRANSFORMER**  
*built by*  
**HAMMOND**



Important in the eyes of men who service or design radio equipment is familiarity with the parts to be used. One of their oldest friends is the Hammond Transformer—trustworthy choice for over twenty years.

In those twenty years, which represent the larger part of radio's growth, Hammond has continually provided transformers of advanced design and finer performance.

Never has it been necessary for Canadian Servicemen, Engineers and Amateurs to bring in foreign-built transformer equipment.

To provide this service for Canada, Hammond has available the technical skill, the trained personnel, the ample development and research facilities of a truly modern plant.

And underlying this is the invaluable experience gained by Hammond in supplying thousands of different stock and specially designed transformers to the Radio Industry.

That's why Hammond, Canada's Only Complete Transformer Line, can offer the assurance of greater dependability with the finest transformers built!

**DISTRIBUTED THROUGH LEADING JOBBERS FROM COAST TO COAST**

**HAMMOND MANUFACTURING COMPANY**

*Limited*

**G U E L P H · O N T A R I O · C A N A D A**

# COMPARE THE QUALITY

# COMPARE THE PRICE

Of any of the items listed in this ad and for further comparison write for the NEW BUD CATALOG NO. 148.

Deliveries of all BUD items now greatly improved. Your jobber should be able to supply you with almost any BUD item from stock.

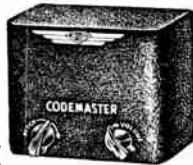
**VARIABLE CONDENSERS.** BUD makes 248 different sizes and types of condensers. We list here the most widely used condensers, known as the **BUD MIDGET**, for your comparison.



15 mmfd.—\$1.14	140 mmfd.—\$1.80
33 mmfd.—1.22	190 mmfd.—1.95
50 mmfd.—1.45	235 mmfd.—2.18
100 mmfd.—1.62	300 mmfd.—2.40

For prices on other sizes and types see **NEW BUD CATALOG**. Ask your jobber for one.

**NEW CODE PRACTICE OSCILLATOR AND MONITOR**

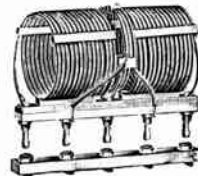


This is a dual purpose money saver. Use it as a code practice oscillator until you get your ticket, and then as a good C. W. Monitor. Yours for only \$12.50 in the speaker model and \$10.15 in the earphone model.

**BUD GIMIX**—The handiest instrument in your shack. Use it as a Wave Meter. Use it as a Monitor. Use it as a Field Strength Indicator. Use it as a Carrier Shift Indicator. Use it as a sensitive Neutralizing instrument. Buy it at your distributor today. Dealer Net \$8.30.



**Bud Adjustable Link Transmitting Coils Same Price With Either Centre or End Link**

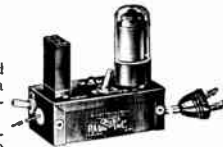


500 watt rating:

80 meter — \$3.65
40 meter — 3.30
20 meter — 3.00
15 meter — 2.97
10 meter — 2.88
6 meter — 2.64

For Other Sizes and Types of Coils See the **New BUD CATALOG**

**BUD FREQUENCY CALIBRATOR**



No shack should be without a means of accurately checking transmitter frequency. The **BUD FCC-90** is a 100 Kc crystal oscillator that is **COMPLETELY SELF-POWERED**. No extra wiring is needed and you don't have to touch the inside of your receiver. Your distributor has it in stock. Your cost only \$14.25.

No longer do you have to take substitutes. Your distributor can supply you with most BUD chassis and other sheet metal items directly from his stock. Accept no substitutes. Get the highest quality at the lowest price. Best buy is BUD.

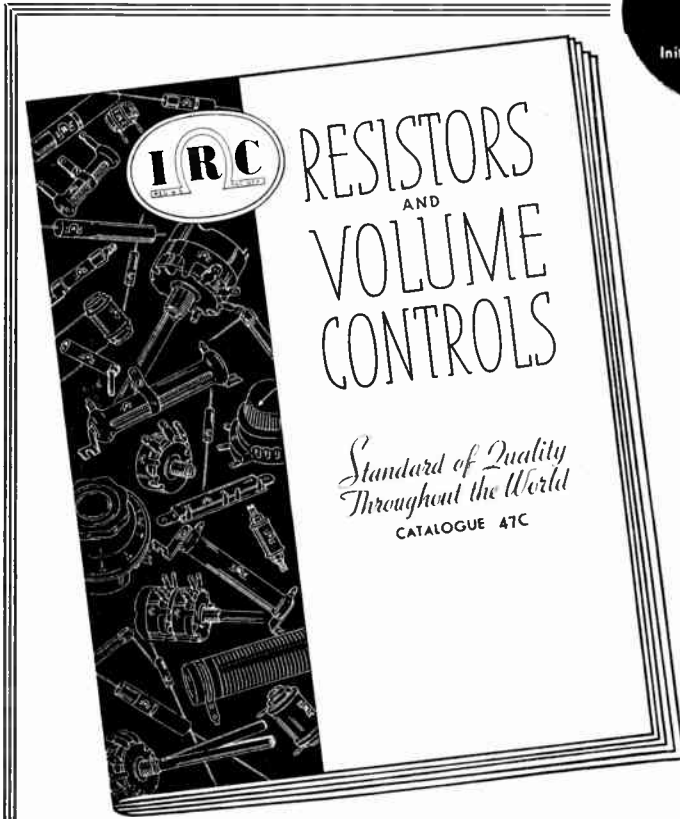
Canadian Representative  
**HEFCO AGENCIES**  
1382 Queen St. East, Toronto, Canada



The mark of perfection

**BUD RADIO, INC.**

2122 East 55th St.  
CLEVELAND 3, OHIO



*You Save Time  
and Money when  
you*

**SPECIFY  
I R C  
PRODUCTS**

**COMPLETE LINE!**

Saves countless hours lost hunting for parts. Your IRC distributor has a complete stock of IRC products on hand to keep you supplied with all your Resistor needs.

**FREE STOCK CABINETS!**

Keep a ready stock of most used Resistors and Volume Controls easily accessible at all times. Cabinet furnished **free** with the purchase of IRC parts. Attractively finished, sturdy construction. See your IRC distributor for details.

**CATALOGUE INFORMATION**

Write for latest catalogue containing complete information on the IRC line.

VISIT OUR EXHIBIT CANADIAN I.R.E. CONVENTION - APR. 30 - MAY 1st  
ROYAL YORK HOTEL

**INTERNATIONAL RESISTANCE CO. LIMITED**

11 KING STREET WEST - TORONTO - ONTARIO



# XTAL

[ C R Y S T A L ]

VOL. X  
APRIL



No. 4  
1948

Published by  
**THE CANADIAN AMATEUR RADIO OPERATORS' ASSOCIATION**

46 ST. GEORGE ST., TORONTO 5, ONTARIO  
TEL. Midway 8235

### CONTENTS

	Page
Editorial .....	4
Electronic Modulation Indicator and Monitor .....	5
Low Power Derby .....	6
Adams Looks at Field Day .....	7
Club Activities .....	8
VHF in Canada .....	9
DX News .....	10
National Report .....	12
Introducing Your D.R. ....	18

### STAFF

Editor  
F. G. E. Powell, Ve3ZE

DX Editor  
R. D. Carter, Ve3QD

VHF Editor  
R. G. Coleman, Ve3ANY

Advertising Manager  
Don Fairbairn

Authorized as second class mail. Post Office Department, Ottawa.

## CAROA

Affiliated with  
A.R.R.L. and R.S.G.B.

### OFFICERS

President  
T. G. E. Powell, Ve3ZE

Vice-President  
R. A. R. Macdonald, Ve3APS

Secretary-Treasurer  
D. W. Patterson, Ve3BBZ

Executive Secretary  
H. A. M. Whyte, Ve3BWY

### EXECUTIVE COMMITTEE

The Officers and,  
W. H. Anderson, Ve3AAZ  
R. D. Carter, Ve3QD  
R. G. Coleman, Ve3ANY  
D. G. Hall, Ve3TB  
A. A. McArthur, Ve3DJ  
A. Palmer, Ve3WK  
J. V. Perdue, Ve3QK  
P. Posnikoff, Ve3BBN  
J. Staley, Ve3GR  
H. A. M. Whyte, Ve3BWY

### DISTRICT REPRESENTATIVES

R. J. Hesler, Ve1KS  
F. G. Gribben, Ve2XR  
R. C. Hunt, Ve3WX  
Les Saul, Ve4FJ  
Bill Gordon, Ve5MW  
W. R. Savage, Ve6EO  
Ernie Savage, Ve7FB  
Jack Spall, Ve8AS

## CAROA

# *... wanted . . . answers . . .*

Spring is here . . .

Spring, the season of new life, the song of the birds and the bees, is upon us. In our last editorial we spoke of the means by which we will be able to bring you a bigger and better XTAL—but that is not the whole story.

In line with the subscription for XTAL we now have an advertising agent who is already increasing our advertising sales. To make XTAL the magazine you want we must have your ideas, your articles, your stories, the harrowing tales of your experiments, the stirring sagas of emergency work by Canadian amateurs—in short, we must have the pulse of Canadian amateur radio beating in XTAL.

Our aim is to bring alive in XTAL the activities of amateurs throughout the Dominion—remember CAROA will only reflect the Canadian amateur if we have your assistance, your voice of opinion, your ideas and your criticism. CAROA is a national body—our 2,500 members are spread from the Atlantic to the Pacific, from the U.S. border to the Arctic.

We have had, in the past, articles submitted for publication. Many of these have been printed in previous issues, but others, for one reason or another, have been unsuitable for XTAL. That is not to say that the majority of articles submitted have not been good—there have been excellent articles sent in but rejected for publication because the editorial board felt that they were not of sufficiently general interest. Some were too long, and, being technical articles, could not be shortened without detriment to their meaning. We extend our thanks and appreciation to all those who have contributed.

Let us go forward into the summer and autumn with a continuous and ever-increasing flow of news, ideas and technical articles at our fingertips so that we can bring you a truly representative XTAL—reflecting the activities of amateurs throughout the Dominion—it's our magazine, let us all work together and provide the lifeblood.

### **Where To Send It**

Technical Articles, stories, projects, hints and kinks.....	CAROA HQ.
Clubs News.....	CAROA HQ.
VHF News.....	VHF Editor
DX .....	DX Editor
Individual Activity News.....	Your D.R.
News of general interest, emergency work, etc.....	CAROA HQ.
Dear OM letters.....	CAROA HQ.

CAROA is anxious to publish in XTAL the latest advances in amateur radio technique and we believe that there are many amateurs in Canada who have developed new ideas which would be of wide interest to the fraternity.

In fact, CAROA is hoping to go one step forward, and to present periodically in XTAL, projects which we hope experimentally-minded amateurs will be interested in pursuing to a satisfactory conclusion.

One of the projects which jumps to the mind immediately is an indicator of deviation for narrow band frequency modulated transmitters.

We present this project for solution, as it is felt that with the ever-increasing popularity of NBFM, a simple, reliable and cheap indicator will be of great assistance to those stations using NBFM.

It is hoped that there will be sufficient interest in this and other projects to channel the interest of experimenters into fields which will assist the advancement of the art.

Much personal satisfaction can be derived by working to such an objective as well as contributing to the numerous advances already made by amateur radio.

We trust that amateurs will forward us articles on projects in which they are active so that we may publish the results from time to time, and also so that amateurs across the country, interested in the same projects, may have an opportunity of discussing points of mutual interest.

## **War Surplus Equipment**

The executive of CAROA has been advised that there have been numerous instances of persons operating war surplus equipment in the amateur bands without being licensed as amateur stations. It is understood that anyone may purchase such equipment, regardless of whether the person holds a license for the operation of radio equipment or not.

It is felt that such "bootlegging" is a threat to the well-being of amateur radio in Canada. Especially is this so when the offenders use amateur calls.

The executive committee feels that instances of such practices should not be tolerated by amateurs who become aware of them. In the interests of Canadian amateur radio it is the duty of any amateur who knows about such cases to report them to the local D.O.T. representative.



# CAROA Low Power Derby

Starts: May 29, 8 p.m. Ends: May 30, 11.59 p.m.

Awards to the leaders in each District.

Fun for the amateur with the slim pocketbook, the newcomer, and the Field Day planners!

The first annual CAROA LOW POWER DERBY for Ve amateurs will afford the newcomer, the apartment dweller with minimum space, and the poor fellow like you and me whose pocketbook hasn't recuperated from the purchase of that shiny new communications receiver! It will do a lot more than that. A.R.R.L.'s Annual Field Day for portables comes up on the week-end of June 12 and 13 and it will give you a dandy opportunity to iron the bugs out of the little rig you plan on taking out to the woods for that famous two days of fun.

Operator experience will be a big asset. Knowing how to get the utmost out of low power is the prime objective. We hope it will stimulate Ve interest in emergency communications. Too few organized emergency squads exist in Canada at present. There is a crying need for support of A.R.R.L. Section Emergency Co-ordinators. Your local A.R.R.L. S.C.M. or your CAROA District Representative will be glad to furnish you information on how to become a part of Amateur Radio's niche in the service of the public.

Then there is Canadian National Carbon Company's beautiful trophy for annual Canadian club competition, now held by Toronto's West Side Radio Club. It will again be at stake come June 12 and 13. Clubs are encouraged to prepare for Field Day now—and the battle for the trophy.

We get so enthused about Field Day that we forget sometimes that there are other methods of having fun with low power and for that very reason we asked our contest-brain CAROA's HQ to dream us up one for, as we said before, the poor guy, the cliff-dweller, and the newcomer. He came up with the LOW POWER DERBY and we think it's a dandy. Here's how you can win a handsome CAROA Certificate of Merit. Follow closely:

## Object

Each Ve participant will endeavour to contact as many stations as possible within the continental limits of the U.S.A. and Canada in a period not to exceed 12 hours.

## Rules

General Call—Phone "Calling any Phone Station"; CW, "LPD, LPD, LPD de (ur call)."

The input to the final tube must not exceed 25 watts.

## Preamble

Number of contact, your call, report given (RST), your location, time, date, VFO (or) CC (crystal controlled). ie.—Hr Nr 1 Ve7FB 569 Vancouver, B.C., 1020 P May 29 VFO (or) CC.

## Scoring

Count 1 point for each two-way contact (solid ones ONLY to count). Multiply the number of stations worked by the total number of states and provinces worked.

**IMPORTANT:** If your power is independent of mains multiply by 2.

Mark each state and province on your log as you work them.

Stations worked ..... 120  
States and province ..... 44

5280

If independently powered multiply by 2—5280  
X 2=10,560.

## Attestation

"I hereby state that in this contest I have not operated my transmitter outside any of the frequency bands specified on my station license, and that the log submitted is correct and true, and further that the tube in my final amplifier was.....(tube number), and at no time was it operated with a DC input in excess of 25 watts."

(If power sources other than hydro mains were used) "I hereby state that in addition to the conditions stated above, I used power which was independent of regular power mains."

Signature.....

It will be of interest to Canadian amateurs that British stations in G, GC, GM, GI and GW are authorized to operate between 1750 to 2000 Kc, although Loran stations are working within this frequency band. The power is strictly limited to 10 watts and enforced. No cases are known where these flea-power signals have interfered in any way with Loran stations even though signals are radiated on exactly the same frequency at the Loran stations.

In case Ve's think 10 watts is to be despised, we understand that Ve3BWY, when operating G6WY, worked 10 countries with this power after the war with good solid QSO's. W-G contacts were made in the years before the war with inputs of less than 10 watts being used. Ve1EA was one who could testify to this.



# ... Adams Looks at Field Days ...

By Eric Adams, Ve3ALG

Ham suddenly remembers Field Day will be coming up soon. Phones fellow ham and learns it is day after tomorrow. Recalls last year's resolution to do something about it and thinks that maybe now is time to get started. Realizes that several pieces of equipment are lacking, chiefly portable rig and receiver.

Retreats to cellar and junkbox to think things over. Decides to handle problem systematically and tackle most important things first. Immediately goes upstairs again to approach mother regarding supply of food. Ham decides to do it Spartan style and suggests a few dozen sandwiches, canned goods and cokes would sustain life during day and a half's operation. Finds mother is somewhat doubtful that project will ever come, but nevertheless agreeable to putting up modest supply of food. Laughs somewhat boisterously at idea of him ignoring Field Day and goes back down cellar.

Recalls suddenly that outdoor operation necessitates place to operate and divides problem into two sections: (a) actual geographical location suitable for hamming and (b) quarters for station, such as cave, hut, abandoned mine or empty house (absurd thought in 1948)! Decides that there are lots of fields around and remembers that an Uncle Gus was once owner of tent. Is somewhat hazy on details but decides to request mother to phone Uncle Gus and make arrangements for borrowing same. Is not sure whether last time Uncle Gus was contacted was in 1927 or 1937. Presumes Uncle Gus will know who he is but thinks it best to let mother worry about that. Shouts instructions upstairs and turns to next problem.

Rummages half-heartedly through boxes of junk and comes across remains of TRF set. Decides it would be idea for portable use but seems to lack several components, such as coils and tubes. Sits in battered chair to think it over. Chair collapses suddenly and ham falls heavily on remains of TRF set. Decides that it would lack selectivity anyway and continues search of junk box. Suddenly discovers stack of QSL's which he forgot to mail in 1938. Is somewhat embarrassed at thought of recent letters he wrote to XTAL complaining about failure of others to QSL.

Hunts further and suddenly uncovers old magazines. Ham reads same for hour, laughing heartily at story of incompetent character who leaves everything to last minute and then makes mess of it. Puts down magazine and explores batch of old papers and letters. Finds photo of moronic-looking girl and wonders who she is. Laughs again until recalling that she is girl friend of two seasons back.

Ham realizes he is getting nowhere. Commences with some speed to sort through remaining boxes and baskets, hastily putting aside collection of old Lombardo records, two dusty photos of a strip-tease dancer and book called "What Every Farmer Needs to Know About Electricity," latter being a Christmas gift from remote relative who failed somewhat to grasp idea behind ham radio. Is suddenly delighted to stumble, literally and figuratively, over latest junk-pile acquisition, namely, dynamotor provided with war-surplus receiver recently purchased, this being only deal involving government in which ham figures he came off best. Realizes that by simple addition of receiver and transmitter he will have entire portable station. Is so relieved at ease with which problem has been solved that ham takes ten minutes off to continue reading magazine.

Thoughtfully considers dynamotor and realizes it is quite possible to run his new receiver with it. Decides that receiving troubles over and turns thoughts to transmitter. Hastily seizes spare tuning condensers, fixed condensers, mixed resistors and anything else that seems useful and decides best idea is to immediately build small portable rig. Is well loaded down with parts and about to retreat to shack when knowledge comes that he has forgotten color code and will be unable to sort resistors. Observes color code chart on upper shelf and tries to capture it with teeth. Efforts dislodge shower of old radio magazines, a log book and miscellaneous papers. Uses elbow to try to keep further material from falling and somehow unhooks entire shelf. Is engulfed in fruit jars, discarded tools, barrage of burnt-out transformer windings, dials, bakelite panels, box of Christmas tree lamps and bundle of old clothes. During general melee antenna coiled on nail in wall slips off and falls over head and shoulders. Ham at same instant hears mother calling from upstairs.

Is finally forced to release handfuls of parts in order to undrape antenna. Is vaguely conscious that color code chart is buried under mountain of junk. Makes mental note to write to XTAL regarding new system of stamping resistance into side of resistors. Decides to see what mother is calling about.

Is informed upon arrival at kitchen that Uncle Gus is on phone. Takes phone and listens to brief account of uncle's former evangelical efforts and realizes that tent he seeks to borrow was used for revival meetings and built to accommodate approximately 300 persons,

*QSY to page 17*

# C A R O A CLUB ACTIVITIES

We would like to call the attention of all clubs in Canada to the "Affiliated Club Bulletin" dated February 4, 1948 which was sent to all clubs affiliated with ARRL by the Communications Manager F. E. Handy. It is an eight page mimeographed bulletin containing many interesting and informative items for clubs. If you have not received your copy, send for it.

The London Amateur Radio Club, London, Ont., held a supper meeting on Jan. 8 at which Mr. P. A. Fields, chief engineer of the CPPL broadcasting studios, was guest speaker. Mr. Fields' interesting talk on propagation on the high and low frequencies was well received and a lively discussion period followed. At the Feb. 12 meeting which was held in the recreation rooms of John Labatt Ltd., Bob Wilton of the Bach-Simpson Co. gave an address on modulation meters and indicators, and Jim MacArthur, Ve3N1, St. Thomas gave a talk and demonstration of artificial respiration and its application in the resuscitation of those overcome by electric shock. At this meeting a collection was taken and \$40 contributed toward the expenses of a Winnipeg ham who underwent a series of major operations in Ottawa.

The Chatham-Kent Amateur Radio Club, Chatham, Ont., held a very successful banquet and hamfest on Jan. 24 in the William Pitt Hotel. Over 75 amateurs were present at the banquet, held in honour of the first official visit of the Canadian General Manager of A.R.R.L., Alex Reid, Ve2BE. Mr. Reid gave an enlightening address on the history of amateur radio and spoke of the present BCI problem attendant to the mass production of AC-DC receivers. Mr. Reid's address was broadcast over Radio Station CFCO. Civic greetings were brought to the gathering by His Worship the Mayor; by the industrial commissioner, Wm. M. Gray, a former ham (3FM) and one of the pioneers in radio in the Chatham-Kent district. An interesting talk on the Department of Transport's support of amateur radio was given by Tom Wylie, 3WY, and Jim MacArthur, 3NI, gave a talk and a brief demonstration of the prone pressure method for resuscitation. Out of town guests were present from London, Windsor, St. Thomas, Leamington, Clinton and many other Western Ontario points.

The Calgary Amateur Radio Association, Calgary, Alta., are planning to organize a hamfest to be held in Calgary. They are also making great plans for entry in this summer's A.R.R.L. Field Day. Ve3RK, Col. Jones, has offered the use of the R.C.E.M.E. workshop for the use of SWL's who may wish to develop their knowledge of ham radio prior to trying their ticket. The club has decided to raffle their frequency meter and turn the proceeds over to the CAROA Food for Britain Fund.

At the meeting of the Hamilton Amateur Radio Club, Hamilton, Ont., held Feb. 19 at McMaster University, a silver collection netted \$16.75 for food parcels for Britain. In the recent A.R.R.L. VHFSS contest, eleven stations scored 443 points for the club. They were Ve3KM, 3AND, 3ABP, 3BGT, 3AQQ, 3AWR, 3BFF, 3BKM, 3AEZ and Ve3DC. Their club magazine will be mailed free to any other clubs who request copies. The club's address is P.O. Box 253, Hamilton, Ont.

The Scarboro Amateur Radio Club, Scarboro Bluffs, Ont., elected their 1948 executive on Feb. 17. They are: President, Jack Turner, 3NZ; vice-president, Tom MacDougall, 3BKB; secretaries, J. W. Harvey, 3AQR, and H. Langstaffe, 3FO; treasurer, K. H. Tripp; and executive, Chuck Harvey, 3ARC; Wilf Brown, 3AJO; Al. Wilson, 3AMB, and Dick Roberts and Alex Clark. Meetings are held every second Tuesday at 8 p.m. at Oakridge Public School, 3375 Danforth Ave., Toronto. Code practice classes are held each Thursday at the home of the secretary, J. W. Harvey, 1227 Gerrard St. E. Six graduates of this class have already received their licences and the reward of a mounted crystal presented by the club. They are planning theory classes, code practice groups on 28 Mc and a club newspaper.

The Loyalist City Amateur Radio Club, Saint John, N.B., held their regular monthly meeting on March 8 at the Saint John Vocational Radio School as a combined meeting with the school club. Special mention was given to Ve1BB for emergency work during a recent serious fire in Shediac, N.B. Plans for a bigger and better field day are being made in the club. As a measure to avoid delays and confusion in QSL'ing, the club has registered members' names, addresses and calls with the Post Office.

The regular monthly meeting of the Winnipeg Amateur Radio Club was held in the club-rooms, Free Press building, on Feb. 28. The vice-president, Bill Sutton, 4NI, reported that GM3UU, Stewart McNicoll, was trying to locate a Winnipeg amateur who had sent him a food parcel without enclosing his name. Anyone knowing this man please contact Ve4NI. The warm letters of thanks which the British recipients of these food parcels send do the heart good. Al Jebb, 4TJ, remarked that a number of Winnipeg amateurs were receiving reports of distortion when using NFM. He recommended that amateurs cut out their AVC and listen for FM before giving distortion reports when listening with conventional receivers. Tom Betle, 4TB, reported "quiet hours" as a result of BCI where the BCL would not permit him to rectify the situation. The amateur does not wilfully cause BCI and clubs are urged to do their utmost to help this

*QSI to page 11*

# VHF IN CANADA

Conducted by GORDON COLEMAN, VE3ANY

The spring season of 50 Mc dx has not, as yet, started. Except for brief E layer openings on Jan. 2 in Halifax area and on Jan. 4 in the Toronto-Hamilton area, nothing has been heard from our fellow VHF'ers to the south. It is fully expected by all that the middle of March will be the signal for resumption of conditions dear to the heart of all VHF'ers. Let us make no mistake, however, the dx conditions this year will not excel those of 1947, if they even approach them. We have passed the peak in the 11-year cycle of MUF conditions and can consider ourselves indeed lucky to have been able to participate in this history-making phase of amateur radio. In 1958, when the next peak will occur, it is not expected to be of such widespread and intensive proportions. After the hustle and bustle of 1948 dx has died down in December, it would behoove us to begin thinking about methods of increasing our knowledge of long-distance propagation by ordinary means. That dx is comparatively easy to work under intensive ionospheric disturbance conditions is evidenced by the fact that flea-power mobile and portable stations have worked some surprising skip dx during E layer openings in 1947. Yes, it was easy last year and it probably will not be too hard this year, but until 1952-3 it will become increasingly harder to work dx, and then is when we will have to fight hard to convince the LF boys that VHF has some virtue. Let's start now to plan for "the lean years."

As we go to press, there has not been time to receive the first reports in the CAROA VHF Marathon. Casual observation reveals that numerous stations are eager to take advantage of the multipliers for NFM, PM, and frequencies above 240 Mc.

That the NFM bug has bitten deeply is evident around Toronto, and numerous new stations are being heard above 51.5 mc. daily. There doesn't appear to be too much difficulty in receiving them on ordinary superhets once the proper amount of deviation has been established. Some experimenters have built NFM adapters and report excellent results. The active group of VHF'ers in Ottawa have been "converted" recently when the local club (Ottawa Radio Transmitting Association) ran a night devoted to lectures and discussions, with demonstrations of NFM, using VHF equipment. Hamilton and Belleville districts also have their strong adherents and others are becoming "infected." It is a good kind of infection, however, as aside from adding to the experimental data on this mode of transmission, it is a sure cure for BCI.

The swing to higher frequencies is being noted in Toronto with Ve3DJ, Ve3AXT and others building equipment and endeavouring to shatter the Hamilton record for 420 Mc. Hamilton is not to be found lagging, however, and a recent windfall of low-power "light-house" tubes has again stimulated interest.

It bears promise of being a good race to see how far the record can be pushed. We will have to go some to beat the U.S. record of 186 miles, but it can be done. Ve1QZ, Halifax dx'er, is at it again, trying to work W1CTW on 235 Mc, and is just completing a rig for 420 Mc. Oscar already holds the dx record for 144. It looks as if he is all out to capture the 235 and 420 Mc laurels! Can't anyone give him some competition?

We hear of Ve3AAA, who has a transmitter and receiver going on 10,000 Mc, and is building another set. We hope to have a full description of this rig for a future column.

We regret that we are still unable to start the dx Derby for this year. There have been two openings, but there were only three or four stations who worked any dx.

We would still like to know your opinions of this column. If you disagree with the style, please write us with your ideas on the subject. There may be features which you would like to see incorporated here. Our crystal ball is becoming a little cloudy and we are not able to read minds as well as we used to. Jot your ideas down on the nearest piece of paper and send them to 46 St. George St. The executive of CAROA is endeavouring to give you a bigger and better magazine. They are hampered by the lack of copy. Technical articles are in urgent demand. There should be plenty forthcoming from VHF'ers, but where are they? We would like to know, too!

## A.R.R.L. VHF MAY PARTY

Dates: Saturday, May 22, and Sunday, May 23.

How: All work above 50 Mc—no cross-band.

Scoring: Basic points from QSO's, one point for each. Different station contacted per band, for 6 and 2; five points for each QSO when on 235-420-125 Mc and higher bands.

Multiplier for sum of basic points used in arriving at total score depends on number of A.R.R.L. sections worked. Each new section worked adds one to multiplier. If you work the same section on another band add another point to the multiplier.

Exchange names of sections for proof of QSO's.

From time to time we receive orders for the Radio Amateur Call Book Magazine. We are no longer the agents for this, but copies can be obtained from radio dealers.

We received a money order for \$1.50 from a Mr. W. John Chivers, but as he sent no address we cannot return his money order. Does anyone know his address?

# DX NEWS OF THE MONTH

R. D. Carter Ve3QD

Did you notice, on the cover, that worn-out old man deeply engrossed with his receiver? That's the OM himself trying desperately to dig up some dirt for this column. Maybe I should get myself a man Friday to do the heavy end of this job. If you boys would write and give me the news I wouldn't have to slave so hard for material to fill up this page. Joking aside, though, gang, this is an unpaid post (as are the other contributing editors) and any assistance you can give me will help very much in eventually making this feature of interest to all. So get those pencils, pens or typewriters going, and don't say you have nothing to report, either, as all contributions, no matter how small, soon add up to a page or so. Here's hoping that you all enjoyed the second session of the dx test and that you found conditions as good as they were the first half. Also hope you are all satisfied with your scores (as if anyone ever is, you dope). Hey, who said that? If I can get enough information before the next issue will give you a general overall report on the whole contest as far as conditions were in Canada for those two week-ends. The first week-end of the fone contest sure opened with a bang and in casual listening we heard over thirty countries in the first few hours. Ten was alive with foreign fones, and even heard a few countries on eleven. That's a nice band, if you don't already know it. Conditions so far for March have been quite poor but follow fairly well along the pattern of last year. The bands should soon resume more normal behaviour, as we note that the W's, 2's and Ve1's are not coming through all day and evening, and are dropping out when the dx does come through. This is a good sign, and shows that the short skip is not so prevalent as it was. There's nothing tougher than to hear good dx the same time close stations are pounding in for you no sooner get in QSO than bang goes a close ham into a CQ. By the time the B.E.R.U. rolls around conditions should be good for some nice contacts.

While, strictly speaking, this has no place in a dx column we have been asked to briefly comment on our experiences with NBFM fone. First, we are using reactance modulation of the VFO which feeds through the buffer stages to push-pull 813's in the final running around 500 watts input. The circuit we used was copied from March 1947 CQ and has performed very well for us here. Several others have been built locally from the same circuit and have been quite satisfactory. If you are on 25 cycle you will need additional filtering. We added 30 henries and 10 mfd. before ours settled down. In a couple of cases here trouble was traced to insufficient filtering in the VFO even though these had performed perfectly on CW. Another place you can expect trouble is

if there is any instability anywhere in the transmitter. We have also heard jobs built from January, 1948, QST that perform as well. As to performance, we can say now the NBFM can and should be just as sharp and clean as a good AM rig, and we believe that if the proper care is taken to adjust things properly much of the prejudice against NBFM will disappear. Some say it works well through QRM, others say the opposite. Our own findings are inconclusive. However, operating at 14,202 Kc (a real hot spot) in the fone contest, we worked four continents in the first hour with S9 reports. In four hours we worked 17 countries, so it certainly will get out. We feel that you have as much chance to work through QRM with it as with AM. The really big thing in its favour is the absence of BCI—yes, that's what we said. With full input, and operating, it is possible to place a BC receiver right beside the transmitter (unshielded) and tune over its full range without any sign of interference. Try and do this with AM. In two months' operation, not one case of BCI has been reported to us. A properly adjusted NBFM signal may be copied on any receiver without trouble, whereas phase modulation requires a xtal filter in the receiver for satisfactory results. So there briefly is our experience with this newcomer.

Well now to dx, a nice letter from Ve7HC reports some good dx for February and mostly garnered in the contest. The best of these are KB6, KP6, MD1, VQ3, ZS, MD5, TF, FA, KV4, VP8, VR5, VS6, VQ4, ZM6, CR9, C, GD, ZD3, MD3, KG6, FOS, CR6, VS2, as well as a flock of Europeans, for a total of 70 countries. Very nice, and to top it all off a 3.5 mc QSO with G6CJ, a real feat and the fulfillment of long trying on Gord's part. How would you like to hike eight miles to operate your rig? That's what he does, but it has its compensations when he gets there, as it's located atop Capitol Hill, the highest point in Vancouver, and antennas offer a rotary folded doublet on 10, a three-element for 20 and a 275' zepp for 80 and 40 or general work. Ve3BHX works VK3MC (7070), ZS5U (7005), as well as others, to make 16 countries in February. He skeds CM2BU regularly and is learning a bit of Spanish, and all he needs now is a trip to Cuba to try it out. Ve6FK had a good month with 51 countries to his credit. A nice one was KS6IJ. Does anyone have this QTH? Other good ones were KP6AA, TF3EA, UD6BM, I1MV (Trieste), J2US, and on phone such beauties as ZS1BV, EL5A, PZ1L, J3GNX, OX3GE, CN8EI, VP6CDI, VQ4ERR, CT1QF, J2AHA, W6URF/KG6, C1CH, CT2AB, together with a flock of others. Nice talking, Don, and that also works out to phone WAC. Does anyone know who is using DA7 calls in Germany? He worked one and we also worked

a couple but couldn't get any information from them. Look for C6YZ in the morning, and ZD1KR, OY3IGO (14052), UA1KEC (14097) Franz Joseph Land. UA1KED is also the same QTH. ZC6WF (14035), GD2DF, W9IYQ/KJ6 (14106) Johnston Land, QTH Navy 311 F.P.O., San Francisco, in the evening. MI6ZJ informs us that on March 1 their prefix was changed to MI3, so watch your count on this. VU2BX comes in around 14008 Kc some evenings. From G6BQ's column in Short Wave Magazine we quote: "C8YR has packed up amateur radio and does not intend to send any more QSL's" (CQ March says these are still coming through). This leaves Zone 23 to C8KY and AC4YN. ZS6NU is Bechuanaland and VQ8AZ is active in Mauritius".

New countries have been announced by the Dx Committee and should be added to your official countries list: Lebanon, AR8; Syria, AR1; San Marino, M1; Pakistan, VU. They also advise that so far Suez Canal does not count as a separate country from Egypt. If you've been counting, better revise your list. This from Herb Becker's column in CQ, as well as the following: CE7ZA, CE7ZB are in Graham Land, and other CE7Z prefixes will also be from the same spot, QSL to Radio Club of Chile, P.O. Box 761, Santiago, Chile. So far this is not a new country but is under consideration. W3LYK/Antarctica is on, QTH Stonington Island, Margarita Bay, South Polar Cap. QSL to his home address. UA/KGA, UA/KQA are both in Zone 19. FQ3AT is operating in French Cameroons as FQ3AT/FE QTH, Ivan Pastre, Base Aviation, Douala, French Cameroons. Other good ones to look for are W0OZW/KS6 American Samoa, MD7DA Cyprus, W2FH/VRA, EA8EDC. Watch for VQ5HEG in Uganda soon. Thanks, Herb. VE3TB knocks off 20 countries in February to boost his total, among which are KP6AA, I6USA, MI6ZJ. Ve3BBZ continues to modulate that five-element beam on ten for 42 countries. His list includes the following beauties: ST2FU, VQ2PL, EL5A, VQ4ERR, FF8FP, CT1NT, OH2QM, CN8BA, also CE7AF, near Cape Horn. Doug has better luck on ten operating in the American section of the band. Ve1NE worked 26 countries in January but forgot to tell us his PW total, so we can't list his this month. Ve4RO keeps the ball rolling with 72 for February, among which are UP, VQ4, VQ3, KP6, YI, SV, J, MX, KA1, VQ2, CR7, UL, VK9, KG. Ve2WW is right in there pitting with 63 countries with contacts with UQ, VQ3, KP6, ZD4, MD5, VS6, UB5, YI, KG6, C9, J3, CR7, SP, and this apart from the contest as Don was wx bound. Ve1AQ had 36 countries, including MD1 (Libya) and MD5 (Suez Canal). He had drive trouble on 10 meters which is now solved so watch out for him next month. Ve3BBN comes through with a list of 39 countries worked on ten phone and covers all continents for good measure. XF1A is not a new country, Pete; it's just our old friend XE1A. The following QTH's courtesy of Ve1AQ: MD1E—APO, Tobruk, Libya, MEF 7 (or Via R.S.G.R.); CR6AI—Box 51, Lubango, Angola; CR6AQ—Box 79, Sao Paolo de

## CLUBS—from page 8

situation by informing the general public of the true facts.

The Frontier Amateur Radio Association, Windsor, Ont., are pleased to announce the names of their new officers for 1948. They are: President, 3BUR, Walter Guillot; vice-president, 3AWJ, Mark McMonagle; secretary, 3AXP, Steve Postelnic, and treasurer, 3BPP, Ralph Dierlam.

The Wireless Association of Ontario held their regular meeting on March 9 at the Training and Re-establishment Centre, Toronto. Officers for 1948-49 season were elected and the new executive will be announced at the next meeting, on April 12. Guest speaker was Al Porter, 3IZ, radio receiver engineering division of the Canadian General Electric Co., who gave an interesting and informative address on the design of portable and mobile VHF equipment. His extremely compact and well designed portable transmitter and receiver combination was used to give a striking demonstration of portable communication. Assisting him in his demonstration were 3ATB, Bert Bouckley, and 3AIB, Les Weir, who operated their mobile 6-meter transmitter-receivers from a remote position outside the building. The need for an RF stage ahead of a super-regenerative detector was ably demonstrated during these demonstrations, and Al urged their use in all mobile installations.

The Ottawa Radio Transmitting Association meets the first and second Wednesdays of each month at the R.C.A.F. station at Rockcliffe. At a recent meeting, Merve Lewkes, 3CV, gave an address on NFM and a demonstration was given by Alf Sheffield, 3EB, and George Davis, 3BBW. Equipment used included two low-power transmitters, one operating on AM and the other on NFM, and various receivers, including SX42-A, SX42, HRO, HQ-129-X, AR-88, and VHF 152 into AR-2. Attendance was good and the local exponents of NFM heartily approved of the lecture. Their executive are: President, Sid Sheard, 3BCL; secretary, Harry Hayes, 3BEB, and activities manager, George Davis, 3BBW.

Loanda, Angola; KS4AH—Swan Island, West Indies, Via Tampa, Fla. Ve3IJ worked five new ones to boost his total as per list. The best were VQ3HGE, MD5KW, VS6AR (Box 541, Hong Kong), W0MCF/C1, YN1AA, YU7LX (via A.R.R.L.), MB9BA (Austria), MD1D.

So long, lads, and let's have the dope on the dx contest from you all.

### PW Countries Worked

Ve3QD	156	Ve3FK	74
Ve7ZM	155	Ve1AQ	73
Ve4RO	155	Ve7EHS	72
Ve7HC	141	Ve3BBZ	72
Ve3IJ	117	Ve6AO	64
Ve1EA	107	Ve3TB	61
Ve3AAZ	102	Ve4RI	55
Ve2WW	94	VO6EP	52

# C A R O A NATIONAL REPORT

## Ve1

Ronald J. Hesler, Ve1KS, Box 160, Sackville, N.B.—NS operates 10 phone consistently. LV is the new president of the Sydney Lions Club. KC is planning to go to higher power in the not too distant future. SH, after a long absence on the air waves, is back again on 10 phone. NT has increased power to 60 watts. LK is planning a new tower complete with rotary beam. MQ is working nice dx. JR is busy contemplating the purchase of the Bach-Simpson modulation meter. LU did a lot of work on his beam and now has it close spaced. BH informs us that he lets ham radio slide in the summer in favor of fishing. DS lost his antenna during a recent storm. JR now has a new VFO which he constructed out of war surplus stock. FI, MQ and HU are new voices heard recently on the 10 meter phone band. MQ is running 80 watts to a folded dipole on 10. HD hopes to get on 2 meters soon using war surplus equipment. HD built an adapter for his receiver in order that he will be able to copy N.B.F.M. signals better. W9EJX continues to turn out a swell bulletin on the happenings of the Ve1 ten meter gang—to get your name on his mailing list to receive these swell bulletins, look for Art and work him on ten.

PC is a new ham in St. John. CG, Mr. H. H. Brannen, has been promoted to the position of Asst. District Superintendent of Radio and DV, Jim Craven, has the new title of Senior Radio Inspector after his name—congratulations to both of you from XTAL. DL complains that he has enough to keep him busy without getting on the air, but says that he has plans for building up a rig some day. GI is not active yet and says that he has no immediate plans. GV left this district and headed for Ve2 land where he has the new call of 2IA—works with Northern Electric in Montreal now. ML is attending the University of New Brunswick, as is also RX. HH is planning a trip down into the States. VB travels the sea with the merchant marine now. LB says he still has his pre-war rig together and hopes to get on the air as soon as he gets his house in shape.

MD is currently busy with teaching two embryo hams. GE has a new rig with 807's ready to hit the ozone just as soon as the weather allows him to get out and put up a new antenna. UG operates on 80 and claims that daytime results on that band have recently been excellent. JL reports he has a new BC312. MW is clipping off dx on 20 CW using 70 watts to an 815 final. MW, RQ and GQ all have come into the possession of that swell little two meter rig, the SCR-522. MR says that he is getting interested in two meters. GP is working to improve the pattern of his

beam to England—Les works nightly on 20 meter phone. FV would still like to raise YV6AO on 10 or 20. FC recently walked off with a door prize at a meeting of the L.C.A.R.C. FV, the editor of the excellent L.C.A.R.C. bulletin, works 20 and 40 these days. IW reports that his shack has been moved out of the pantry! HU is happy over working Hawaii—why so happy Claude, trying to date up some of that hula-hula stuff? AK operates 20 and 10 and says that he very seldom comes down on 80. IE is now located at his old QTH of Grand Manan after living for quite a few years in St. John. QL is away with the merchant marine. EE is conducting a series of fb technical articles for the beginner in the L.C.A.R.C. bulletin. The L.C.A.R.C. are sponsoring a new phone and CW net called the Fundy Net.

Headquarters has advised me of a new deadline for copy in this column and I would appreciate it very much if all club secretaries and individual correspondents would mail their copy to me five days prior to the end of each month rather than the 12th of each month as has been the case heretofore. More news just arrived! ET and NE using new VFO's. HD has a 19 set and an FM detector for his NC 240D. GT building new power supplies. RP's antenna down again. FN moving to Ve3 land soon. AX and MZ have propeller pitch motors rotating their beams. EP now VO6EP says Newfy good dx site. Ve7YY now stationed in Halifax. CG new RI for district. 73, Ron.

## Ve2

Floyd G. Gribben, Ve2XR, 5120 Westbury Ave., Montreal—Well, gang, here we are again at the Ve2 keyhole. Now that the dx and VE-W contests are over, there are plenty of tired hams around. If you are one of them you'll be relaxing right now. While you are at it let's see what's doing in Ve2. Main interest around Montreal is coming A.R.R.L. convention, Oct. 8 and 9 at Mount Royal Hotel. The hard-working committee is going all out to make this hamfest something to remember. However, you can't expect these lads to do all the work. They need your support. You can help out on publicity by telling the hams you QSO all about this big event. The next time you pound the brass or diaphragm, let 'em know about the Eastern Canada A.R.R.L. National Convention. If they want more dope, get 'em to write the sponsors. The Montreal Amateur Radio Club, Box Number One, Postal Station "D", Montreal. SA and PK evade BCI on ten with FM. WK invades it with AM! LD keys his rig on 40. GX warbles on ten. HL, of Quebec, gabs before breakfast on 75. M.A.R.C. still going great guns on sending

food parcels to British hams. CO, the CO in this dept., is doing fb job and reports many fine letters of gratitude received. Entire club to continue personal financial donations to keep this worthy cause going. VL got more modulation by reversing leads on his output transformer. DL was in Windsor on biz and visited 3FP and 3ZO. AAN, George Pendlebury, new Montreal ham on 7010. Welcome to ranks, George. FV sold entire station and now collecting junk for new setup. NI has his fix on six. AAX is new brasser on 80. ABK, ACM, ACR are new sigs on 40. First exclusive Ve contest in years was held Feb. 7 and 8, sponsored by CAROA. Lotto fun had by those taking part. As usual, Ve2 was up to par for contests. Meaning—poor show! Outside of your scribe, 80 meters found FG and GM doing their stuff. HI, our Ethel, was heard in the fight on 40. How about you guys doing better in the next exclusively Ve contest? It's the Low Power Derby on May 29 and 30. Watch XTAL for the dope. See you in the contest. DY of Dixie vocals on ten and reveals xyl has call ABW, so lend an ear, men! RP and PO modulate their finals on 28 Mc. BL slaps it out on 80. AAV is new arrival on 80. TJ, YX, GU bang it out on 80 in the a.m. DX and LU fought it out in the dx contest on ten fone. BB, Gordie Webster, the Lachine traffic hound, sent in fb letter. When he's not glued to TCA shift work at Dorval, he does his bit for ham radio by handling traffic. Six and a half years in R.C.N.V.R. as CO in radio and radar puts him in the "know." Meet up with him on 7162 Kc. and listen to his 100 watts to those 812's. QQ rebuilding after selling former 300 watt rig. MT dits and dahs on 40. St. John's BCL's report that LQ is on ten fone. HI rebuilt to 812's after old rig went phfff due to flat bias battery. Ottawa says our new 1948-49 licenses will show our FM allocations. Guess this means they are now permanent. Archie Flemming, always seen at M.A.R.C. meetings with HI, will have his first ham call by the time this is read. He'll be heard from Benny Farm with an 807 on 40. Welcome, Archie, OM. If you've heard ABT with his 807 on 20 you were copying Ray Mercier on 7780 Champagneur St. in Montreal. NL, Norman Hagan, bangs it out on 20 CW from 7420 Querbes Ave. in Montreal. He's heating an 807 with 30 watts. EP proudly boasts VS7AB on a CQ in dx contest on 20 fone running about a full pint. The guy with the NC-173 (won at a M.A.R.C. draw) Jock Black, is now signing FW on 10 and 20 CW. CA and SA gave FB talks to Senior Group at M.A.R.C. February meeting. They sold FM so well that we are hearing more converts from the AM ranks. ZZ, our RI, did swell job of talking to Junior Group on power supplies. WW, our dx man, tries out fone on 10 and 20. DU has new speech clipper on 75. GM built new rig just for 80 with VFO into PP 6L6's. BE giving out with new FM job. Quebec's newest ham club boasts about 35 members who are doing the three R's at Dawson College in St. John's. If you hear ACH on with half a can full, it's pouring from their new AT3 rig. If you need code practice lend an ear to NR on 7120 Wednesday and Friday nights from

7.30 to 7.45. QL soon to add to Lachine QRM when he changes Three Rivers QRA. Len Walker, SM, the 1947 M.A.R.C. Treasurer, chalked up a happy \$363.63 balance at the end of the year. Here's hoping we'll still be in the chips at this year's end. Our A.R.R.L. S.C.M., Gordie Lynn, wants your monthly reports for QST. Won't you guys drop him a line c/o Radio Division, Montreal Airport? If you are one of the few (?) who are complaining of QRM in our bands, you might be interested in knowing the biggest cause of it all. There are now 81,000 W hams! Louie the Lid says, "A sideband is a standby orchestra." Beef Dept.—In spite of all these years, we still have our number one QRM nuisance. The guy who tests without a dummy antenna! Do you? Stan Comach, Ex-EE, was in Montreal recently and reports he is now 6EE in Edmonton. WF has VFO and doesn't like long wire antennas. How long? AAG is new ten meter voice. PK, QS, QV have converters for ten. BR joined ranks of landlords and should be back on again now after changing QRA. OG sporting new VFO. LP and AI gab on six. JJ getting things ready for six meters. Ottawa asks that we renew our licenses thru the Montreal R.I. office from now on. So all you guys, please send your two-fifty to the Inspector of Radio, Room 403, 400 Youville Square, Montreal. Don't send it to Ottawa! CC of Cartierville rebuilding. Hope the xyl is better Guy. TH made Q5er from surplus U.S. command set. Perhaps many of you have noticed an increase in the poor operating practices on the part of some of us Ve

## Say OM! . . .

All bumpers, cow-catchers, propellers and noses are heading for Montreal this October bringing hams from far and wide to the

**EASTERN CANADA**

**A. R. R. L.**

## NATIONAL CONVENTION

at the

**MOUNT ROYAL HOTEL**

**October 8th and 9th**

In the meantime, start collecting \$5.50 for yourself and \$3.50 for the good lady.

You can get further information and advance reservations by writing the sponsors. The Montreal Amateur Radio Club, Box No. 1, Postal Station "D", Montreal, Quebec.

fellows. In the U.S. the A.R.R.L. has a volunteer organization known as Official Observers (O.O.). These fellows monitor the ham bands and note off-frequency and other poor operations and report their findings to the fellows concerned, thus tending to keep ham operating at a higher level than would otherwise be the case. To distinguish ourselves from our W brethren, our group could be called Official Monitoring Stations (OMS). Should we ask CAROA to sponsor such an organization in Canada? Let's have comments, lads.

Well, gang, that does it up for this month but we'll meet here again in the May issue. Before you go, be sure and jot down a little bit of news about yourself and the fellows near you and drop it in the mail to me. My QRA is at the top of the column. There's hundreds of you fellows the other lads would like to hear about. You are one of them, so why not use this column. It's yours! Let's make this the largest column in XTAL! Let's hear from you soon! CUL and 73, Floyd.

### Ve4

Les Saul, Ve4FJ, St. James, Man.—At last the Ve4 hams are co-operating, hence the column. Tks to 4GW, 4SH, 4TJ and 4AD. ZM is on 10 phone with 60 watts. WB grid modulating also on 10 phone with half a gallon, fb dx too. DO now in Kingston with the army, signing 3BON on 20 phone. Also on 10 phone is SJ with 360 watts. EA keeps 'em all happy with nine watts phone. CW on 75, 80, 40, 20, 10 and 5. KW in St. Vital lost his lazy H in a windstorm; now using a doublet and plans for some phone work. NZ is brass pounding with 25 watts, plans hipower stuff soon. 130 watts to a pair of 807's gets CX out nicely on 20 phone. It's diapers instead of dipoles for NG of St. Vital when the junior op arrives. GG at Sandford works Winnipeg regularly with his extended ground wave on 20 phone. BD in Deloraine is strictly a CW man, we hear. DL shifted QTH to St. Boniface for more room to erect a "real" antenna—in the clear, that is. Now operates regularly on 10 and 20 phone. DG goes to extremes, two meters and 75 phone. SS works 80, 40, 20 and 10 all at once. SR has half a kw on 20 phone. The new

beam at TB pulls in the 20 meter dx—at nite, of course. EL will be resting his fist and exercising his tonsils soon. DE pounds brass on 40 and 20. About the only 10 CW man is RO. Recent additions to 10 phone are SG, GI, and RP. YO on 20 has fb signal on 10. SH, LF, RO and IS all on 11 meters. LF has a VFO BC459 on 10. VK and ZL come in on 10 between 5 p.m. and 8 p.m. CST, F8 and D4 also workable from 9 a.m. to noon, CST. Regular 10 phone men are GQ, AH, SJ, LF, WB, FU, EX, KF, RO, LC, SH, IS, GI, JE, ZK, KK and YZ. 73—Les.

### Ve6

W. R. Savage, Ve6EO, 329 15th St. N., Lethbridge, Alta.—6YN uses mike to ground antenna and then can't get out because it was only a cheap mike. 6AO has a new code; you must send dots at 60 per minute and dashes at four per minute. 6BU doesn't recognize his call and sits waiting for someone to do something, then remembers that he was being called. 6HQ is operating NBFM on 20 meters and getting good results. 6WG has a nice layout, VFO with a pair of 809's in the final. He is on a traffic trunk line and does a nice business QSP. 6BR drove yours truly back to the hotel the other night and believe me if he can pick out dx stns in the QRM like he picked out the streets through that frosty windshield, he should work WAC in ten minutes and belong to the DXCC in a week! 6GD is going to move the gyp-joint in the other half of the building. Of course Jim is going to have a private office, complete with stenog. But Jim the girl dogger, and lover of fine art, can't make up his mind if he should have the powder room in his office or have it at the back of the store. All married hams please write in and give him some advice. 6OD has a very nice VFO, but what takes your eye out is all the meters. He has a meter for everything, S meter, DB meter, voltmeters, MA meters, etc., and he's working on a GH meter that tells the boys what time to go home, but doesn't know how he is going to calibrate it. 6HZ says he was in Calgary on a jury but we couldn't find him and figured that he was the victim and was behind the bars. 6AW, sorry I didn't get arrived to see you, would have liked to see

**WESTERN HAM HEADQUARTERS**  
CALLING  
**VE 4-5-6-7-8**  
HALICRAFTERS RECEIVERS

S-38 .....	\$ 85.00
S-40 .....	139.85
SX-42 .....	414.50
R-42 Speaker .....	38.25
R-45 Speaker .....	42.30

**L. J. HAMERS & CO.**  
222 Edwards Ave.      The Pas, Manitoba

**Bendix Transmitters—TA-12G**

With Receivers RA-10 DB, 150 Kc to 10 Mc with 28V Power Unit and misc. accessories.

Never Used.

A Buy at ..... \$135.00

**ELECTRONIC SUPPLY**  
142 Bank Street, Ottawa

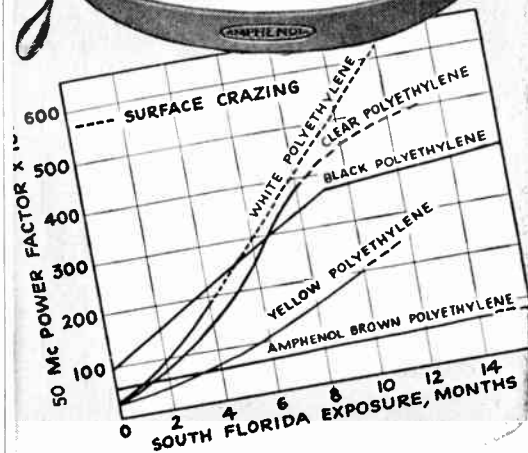


your AT3 in operation, but just couldn't make it. Better luck next time. 6GR has trouble with the bias battery on his HT9. He says he will be on the air soon if not he is going to build a bias supply. 6GK makes a recording of 6YN and then plays it back at double speed, which made it sound like Donald Duck. 6AC says he is operating on 10 meter fone now when he can find time to do so. Sorry, Frank, that I didn't get around to see you when I was in Calgary. 6TA is on 75 fone and putting out an fb signal. 6MJ works two ZS station which now gives him WAC. Nice going, Sid. 6MA, when Bill goes out visiting he takes his crystal with him. He says that is so he can keep his skeds. We have another angle, could be to keep down the electric bill at home. (Hi!) 6JC is putting out an fb signal on 80 meter CW. 6AF now has a Jr. operator; yes, fellows, a bouncing baby boy. 6LD is a new ham in Lethbridge but is not on the air yet. 6HO is looking after the R.C.M.P. radio system in Lethbridge. 6MV is also a new ham and has a rig going on 40 meter CW. 6KO works his first VK station; guess he will be gunning for WAC now. 6MN is QRL while he is in Calgary doing some more studying. 6OX is still working out well on 10 meter fone. 6EV says he is fed up with high power and is going to build a small rig now. 6JJ says he is going to stay on 10 and 20 meters because 75 is plugged with QRM. 3BAC pays yours truly a visit while installing FM radio in a local taxi business. 6EO is very busy rebuilding transmitter and also a scope. That's all for this month fellows. 73—Bill.

### Ve8

Jack Spall, Ve8AS, Box 268, Whitehorse, Y.T.—Ve8AJ has been transferred to Winnipeg by D.O.T. We wish Bill lots of luck and not too much QRM from the Winnipeg gang. Another D.O.T. man is moving to Norman Wells shortly. Ve7ADQ, late of St. John, is a newcomer and hopes to be on soon with PP807 on all bands with CW only. Al moved from Teslin to Whitehorse recently and will be on soon with an 809 final fone, CW. BG very busy building a receiver and moving to new QTH in Whitehorse. BB sez he is too busy to complete his PP813 rig but has hopes of getting in the QRM shortly. AY blew hi-voltage transformer for his PP813 final so is QRT until necessary repairs are completed. AN has been moving around too much lately to complete his new rig which we understand will have PP812 final for fone and CW. AW still knocking the dx cold with his Yukon KW. Lyle doesn't say much but we hear he is very close to 100 countries now. AK seems very busy these days buying household things and we hear he shortly will be walking down the aisle. Good luck, Bob. BV keeps the W's happy on ten fone and is waiting for good weather to put up a rotary beam. AS returned from three months' holiday and will be busy rebuilding for some time. AO moved into new quarters and keeps the family hour going on 75 fone, along with CD, BC, AT, AM, AC,

QSY to page 16



Two good reasons for the superiority of Amphenol Twin-Lead are clearly shown on the graph above.

• Note that Amphenol brown polyethylene shows no surface crazing and almost no change in power factor after twelve months' exposure to strong sunlight, wind and rain. Ordinary clear or natural polyethylene insulation crazed and cracked after nine months of the same exposure and deteriorated in power factor by 1700%.

Insist on Amphenol Twin-Lead and you can be sure of the best. Amphenol engineers are far ahead in bringing to the amateur the latest improvements in RF transmission line, RF and electrical connectors and many other components for electronics.



Available in 75, 150 and 300 ohm impedances for receiving and 75 ohm impedance for transmitting.

**AMERICAN PHENOLIC CORPORATION**  
1830 SOUTH 54TH AVENUE, CHICAGO 50, ILLINOIS  
COAXIAL CABLES AND CONNECTORS - INDUSTRIAL CONNECTORS, FITTINGS AND CONDUIT - ANTENNAS - RADIO COMPONENTS - PLASTICS FOR ELECTRONICS

# AT LAST!

It's New . . .

It's Canadian . . .

It's NORPAK!

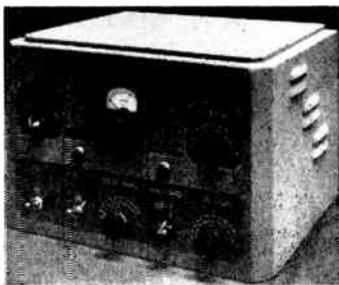
A Canadian Ham Transmitter  
designed and built by amateurs  
for amateurs.



**NORPAK  
100-T**

Norpak is no longer an experiment. It has proved itself under actual test

in operation for over a year. It is now ready for the Canadian Amateur. A sensationally new medium power transmitter designed for Compactness - Dependability - and Simplicity of operation. Frequency coverage is 10 to 160 meters.



**NORPAK  
100-M**

Designed for use with the Norpak 100T. Simple to install - just plug

in. All the latest features have been incorporated in these units.

For further information consult your local jobber. If he does not carry the NORPAK line, write direct.

## NORTHERN PACIFIC

MFG. CO.

58 West Cordova Vancouver, B.C.

**Ve7YD**

## Dear OM . . .

Windthorst, Sask.

Editor, XTAL:

I want to take this opportunity of expressing my views on how I think XTAL could be improved.

I've heard considerable "beefing" on the air about lack of material in XTAL, and I wish to state that I think it is the membership's own fault. Think it over, fellows. What have you done towards making our little magazine better?

I heartily agree with my friend Ve5AP, in regards to "down to earth" circuits for low power rigs and power supplies, and am glad to hear that XTAL is making an effort in this direction.

I'd also like to see many more letters on the "Dear OM" pages. Why not write a letter expressing your views on some radio subject or pet peeve?

Here is mine. I can't help but feel that while most of us were away in the Services our 160-meter band was stolen from us. Are we going to take it lying down? In reading over reports of the Atlantic City Conferences, I still think our government has the power to assign us frequencies on 160 providing it does not interfere with Loran. Why not issue provisional licenses for low-power stations that could be revoked at any time if interference was caused thereby? I hear somebody say "But that wouldn't be fair to amateurs located on the coasts near Loran stations." Do you think there are amateurs that would take such a "dog-in-the-manger" attitude? I don't. I think they would be glad of the lessened QRM because of the many stations that would use this band for local ragchews instead of cluttering up the higher frequency bands. If we sit back and do nothing about this we'll certainly lose the band and, who knows, perhaps 80 will be next.

Ray Brown, Ve5RB.

### NATIONAL REPORT—from page 15

AK, and whoever else happens to be around. CD gets out on 80 CW with two watts input. AT is heard most nights on 75 fone. AM is operating ten and 75 fone with 100 watts. No news from the N.W.T., so how about it, gang. Don't forget to listen on 75 fone for the weekly broadcasts on CAROA and latest dope on contests, etc. We wish to say thanks to all the gang we visited during our recent visit to Winnipeg and southern Ontario gang. 73—Jack.

The article by E. McTaggart, "Rehabilitating the AR6 Receiver," was a description of work done in the shops of Canadian Research Institute. We are pleased to divide the credit accordingly.

## ADAMS—from page 7

same being described officially as "ideal for small circus, travelling show and similar purposes."

Ungraciously mumbles it won't do and begins to see why family had nothing to do with Uncle Gus for years. Is forced to listen to article written by uncle on bird life in Tasmania. Finally ends conversation and goes back, tired but still unbeaten, to cellar retreat. Delves in junk to find dynamotor again and finally locates it. Is suddenly stricken with ghastly thought and frantically hunts for instruction plate on same. Realizes that it requires peculiar input voltage and consumes enormous quantity of current and operation without an auxiliary generator to keep batteries charged is quite impossible.

Decides that Field Day operation is quite impractical and that insufficient notice of event is provided. Feels quite justified in taking no part. Shouts to mother not to bother about food and retreats to shack to see what's doing on 40.

Hom Ads cost only 25 cents per line. They reach more Homs than in any other medium.

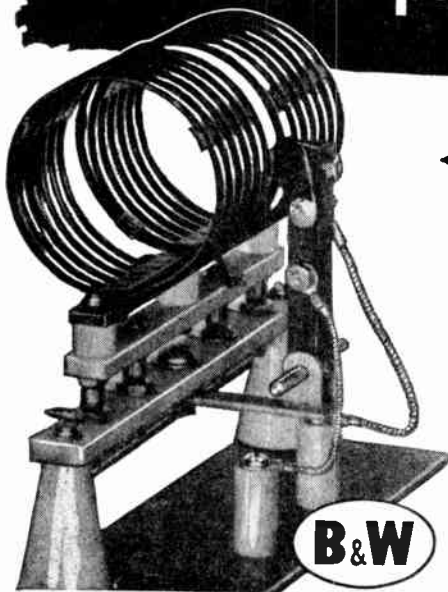


**AEROVOX**  
*Capacitors*

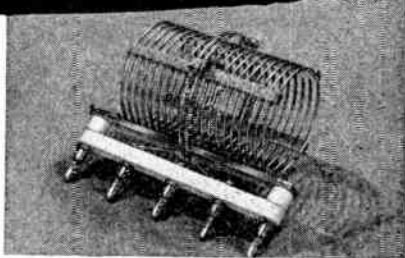
PREferred THE WORLD OVER

MADE IN CANADA BY  
AEROVOX CANADA LIMITED - HAMILTON, ONTARIO

**LOW DIELECTRIC LOSS! HIGHLY EFFICIENT! EXCELLENT APPEARANCE!**  
**and better performance per dollar**



B & W Type T coils are available without link fixed center link with center tap, and variable center link with center tap. The latter arrangement has the link hinged on the jack base which permits use of the same link with coils for all bands. Thus you can provide easy panel adjustment for matching of load impedances up to 72 ohms.



Since B&W pioneered the "air wound" type of coil some 12 years ago, these excellent inductors have proved their unquestioned superiority in Amateur equipment — and in a wide variety of military and commercial devices, too!

The Type T Inductor shown here is widely used with great improvement in efficiency. For the majority of Amateur applications, and for powers up to 500 watts, Type T Air Wound Inductors are ideal. They're rugged, reasonably priced, and will be a credit to your rig.

Write for B&W Catalog.

**B&W**

**BARKER & WILLIAMSON, INC.**

Dept. XL-48 • 237 FAIRFIELD AVE. • UPPER DARBY, PA.

Canadian Representative:

**WM. F. KELLY CO., 1207 Bay St., Toronto**

## Introducing Your DR...

### ★ RON HESLER, Ve1KS

Became interested in amateur radio early in 1936, and obtained his ticket in May, 1937, at the age of 16, at which time he was the youngest amateur radio operator in the Maritime Provinces. Began operations on 160-meter phone with home-made transmitter using a pair of 210's and modulated by pair of 46's, and another small-powered rig which was used on 80 CW. Was active until war broke out, at which time he was holding the A.R.R.L. appointments of O.R.S., O.P.S., O.B.S. and A.E.C.

In October, 1941, joined the Royal Canadian Artillery, and after training was commissioned as lieutenant. Low medical category confined his duties to Canada, and from February, 1942, until February, 1943, was retained as officer in charge of training of "C" Battery in Camp Petawawa.

In 1943 was transferred from the Artillery to the newly formed Telecommunication Section of the Ordnance Corps. After five months duty at N.D.H.Q. in Ottawa was sent on a four-months course of instruction which was held at all the Canadian radio factories manufacturing wireless equipment for the army. Upon the completion of this course he was transferred to the Atlantic Command (New Brunswick, Nova Scotia, Prince Edward Island, Labrador and Newfoundland), in charge of all army 2nd to 4th Echelon wireless maintenance in this command.

In the fall of 1944 he was transferred to the Telecommunication Group of the Directorate of Mechanical Engineering (R.C.E.M.E.), promoted to the rank of Captain and remained there as a technical staff officer until his discharge in the fall of 1945.



As soon as amateur restrictions were lifted he immediately resumed operations on the 10-meter phone band and renewed his A.R.R.L. appointments of O.P.S. and O.B.S. In the spring of 1946 he was appointed D.C.M. of the Maritime District of CAROA. Recently became a member of the R.C.C. Currently operates 75, 20 and 10-meter phone.

In civilian life is the director of public relations of Enamel & Heating Products Limited at Sackville, N.B. Age-27.

Our cover this issue shows Ve3AYL, Mrs. Sid Burnett, and the junior operator. 3AYL was one of the first licensed xyl's in Canada, getting her ticket in 1930. She operates on 14 Mc exclusively.

We have just handed a cheque for \$47.75 to Mrs. C. E. Lloyd, xyl of Ve3DD, who is running an excellent system to send 10-lb. food parcels to G's on behalf of the Southern Ontario Phone Net.

Mrs. Lloyd is doing a very good job, and it was felt by the executive of CAROA that we cannot do any better than to hand such money as we have already collected to Mrs. Lloyd, to send parcels to G's on behalf of CAROA. Some of the letters already received from G's speak eloquently of the deep heartfelt appreciation of the recipients.

### LEARN CODE this easy way

• This automatic INSTRUCTOGRAPH machine will teach you quickly to send and receive code (Morse or Continental). It comes complete with code tapes and instruction book, gives clear signals as fast or slow as you wish. Low Rental plans, clockwork models, for 1, 3 or 5 months. New machines for sale, Electric Models included. Write for folder giving full details.

Also Day, Night and Home Study Courses in all branches of Radio Communications.

**RADIO COLLEGE OF CANADA**  
54 Bloor St. W. - Toronto

Conodion Rental Hdqtrs. for over 10 years.



# GET THE C.E.S. HABIT . . .

## FOR HAM GEAR NOW

### BLILEY

SMC 100—1000 Kc Crystal	11.25
CCO-2A OSC. Less Tube and Crystal	12.95

### JOHNSON SOCKETS

Type	For	Your Cost
210	866 etc.	.88
211	810, 872 etc.	1.28
213	304TH, 152TL etc.	1.60
216B	Giant 5 Pin Bayonet	2.30
216S	Giant 5 Pin Bayonet Steatite	3.40
237	813 etc.	.88
244	8008 etc.	1.20
247	826 etc.	1.00
235	Acorn Socket	1.00
265	Acorn Socket	.88
267	Min. Ceramic Wafer	.40
277B	Min. with Shield Base	.60

### NEW RELEASE

### WAR SURPLUS TUBES

866/866A	.95
6AJ7/6AC7	.40
6AK7/6AG7	.40
6AK6	.57
6C4	.45
6J6	.40
RK60	Now .55
815	2.00
802	3.00
805	5.00
816	.55
991	.40
2051	.80
9003	.30

### WAR SURPLUS

IN23 Silicon Crystal	.25
Min. Wafer Sockets	.10
Min. Mica Filled Sockets	.15
Talkie Xtal Kits	1.50

### ELECTRO VOICE

Model	
915—Crystal Microphone	8.00
415—Desk Stand for above	1.20
615—Dynamic Microphone	13.20

### MILLEN

92101—R9er with 27-32 MC Coil, Less Tubes	33.25
90800—50 Watt Exciter, Less Tubes and Crystal	57.00
90810—2-6-10 Meter Xmitter	94.00
10035—Panel Vern. Dial	8.00
10039—Midget Panel Dial	3.65
36001—Ins. Plate Cap 9/16"	.28
36002—Ins. Plate Cap 3/8"	.28
36004—Ins. Plate Cap 1/4"	.28
33991—Socket for 991	.61
33002—Xtal Socket 3/8" Spc'g	.34
33102—Xtal Socket .487x.095	.34
33202—Xtal Socket 1/2"x.125	.34
33302—Xtal Socket for CR7	.28
33307—Min. Socket and Shield	.88
46811—Guillotine Osc. Coil	2.85
46812—Guillotine Rf. Coil	2.85
74001—Permeability Tuned Form.	2.50
77083—"83" Hash Filter	1.35
77866—"866" Hash Filter	1.68
77872—"872" Hash Filter	1.85
79010—30 Mc Wave Trap	1.22
79020—14 Mc Wave Trap	1.22
79040—7 Mc Wave Trap	1.22
79080—3.5 Mc Wave Trap	1.22

### SIMPSON

Model 77 Modulation Meter, Moni- tor, Wavemeter	29.50
--	-------

### BOOKS

ARRL 1947 Handbook	To Clear 1.29
ARRL 1948 Handbook	2.00
Radio Handbook, 11th Edition	3.25

QSL Cards per 100	1.50
Samples on request.	

**C**ANADIAN **E**LECTRICAL **S**UPPLY CO. LTD.

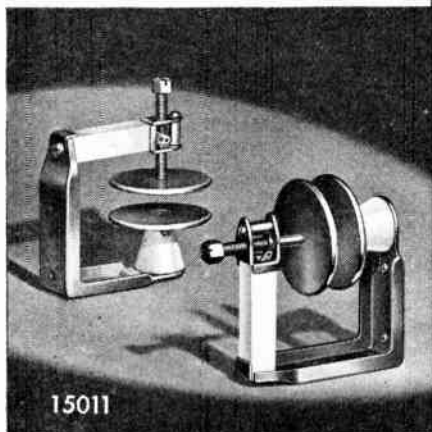
TORONTO—387 Yonge St.

285 Craig St. W.—MONTREAL

Designed for



Application



15011

### Disc Type Neutralizing Capacitor

Designed originally for use in our own No. 90881 Power Amplifier, the No. 15011 disc neutralizing capacitor has such unique features as rigid channel frame, horizontal or vertical mounting, fine thread over-size lead screw with stop to prevent shorting and rotor lock. Heavy rounded-edged polished aluminum plates are 2" diameter. Glazed Steatite insulation.

**JAMES MILLEN  
MFG. CO., INC.**

MAIN OFFICE AND FACTORY  
MALDEN  
MASSACHUSETTS



## HAM-ADS

Copy for Ham-Ads must be received before the tenth of the month preceding issue. Rate is 25 cents per line.

RECEIVER FOR SALE—7 tubes - built around AR5 coil turret. 25 cycle power supply - built in speaker \$35.00 or swap for what have you. J. N. Dewor, VE3BES, 62 College St., Trenton, Ont.

FOR SALE — AR77 Receiver with matching speaker. Stanley T. Smith, VE5AW.

QSLs for discriminating hams. Distinctive! Colorful. Highest quality! \$1.50 per 100. Samples 10 cents. VE3QS Print, 344 Pape Ave., Toronto.

### WAVE CERTIFICATES (Worked All Ve)

CAROA welcomes applications for the WAVE award from amateurs anywhere in the world. To qualify, applicants should send in 18 cards proving two-way communication with amateur stations in the nine Canadian provinces. These are: Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia. Contacts with Yukon or the Northwest Territories are grouped with British Columbia.

Two contacts on separate bands are necessary with each province. We have received several applications enclosing cards confirming contacts with Canadian districts. Such applications have been turned down. All contacts must have been made on or after January 1, 1939, and must have been made from within one province or state.

The certificate granted is really handsome, so hurry up and send in your cards. Recent successful winners of this coveted award have been HB9AW, KP4KD, W2LTP, W3OP and W3EVW.

**JAMES MILLEN MFG. CO.  
INC.,** Products are represented in Canada by

← **THE  
ASTRAL ELECTRIC CO.  
56 Wellington E., Toronto, Ont.**

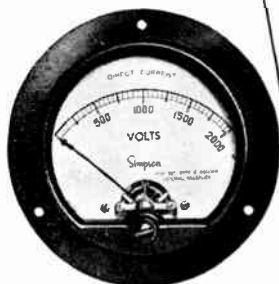
# STOP GUESSING

Know your **EFFICIENCY**

Illustrations below are only the popular case sizes. For other cases see your Simpson Jobber.



R.F. Ammeter as illustrated above  
2 1/2" - Model 137  
3 1/2" - Model 37



R.F. Ammeter as illustrated above  
2 1/2" - Model 135  
3 1/2" - Model 35



R.F. Ammeter as illustrated above  
2 1/2" - Model 136  
3 1/2" - Model 36

W 8 J K  
95 R 8-9  
2869 K 6

## R.F. Ammeters

A Simpson R.F. Ammeter will tell you the story —

Frequency Range — up to 100 M.C.

High overload characteristics

"Bridge" type thermocouple unit.

Ranges \* 2 1/2" Models 135, 136, 137  
1.0, 1.5, 2.0, 2.5, 3.0 and 5 amperes  
your net **\$8.50**

\* 3 1/2" Models 35, 36, and 37  
Uncompensated for intermittent service  
1.0, 1.5, 2.0, 2.5, 3.0 and 5 amperes  
your net **\$9.15**

Compensated for continuous duty  
1.0, 1.5, 2.0, 2.5, 3.0, 5, 8, 10, 15, 20  
and 25 amperes  
your net **\$13.25**

Other case sizes and ranges —  
and an external thermocouple  
unit as well



# Simpson

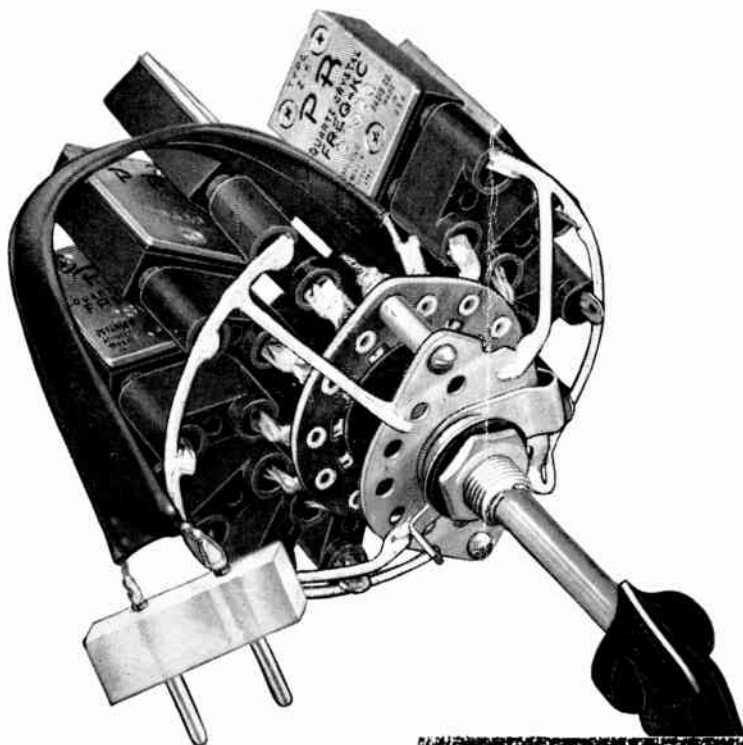
Entirely Made in Canada by

**BACH-SIMPSON LIMITED**  
LONDON CANADA

**INSTRUMENTS THAT STAY ACCURATE**

MADE IN CANADA

World Radio History



## NOW YOU CAN GO PLACES!

QSY is as easy as pie! Yes, the Crystal Shifter illustrated above gives you INSTANT SELECTION of as many as eleven crystal controlled frequencies within a 100 kc. or so range on phone . . . without removing excitation, turning off plate current, or retuning of transmitter stages . . . without danger of getting out of the band . . . with positive knowledge of where you are ALL THE TIME! You can build this PR Crystal Shifter in a half hour or less with a soldering iron and a pair of pliers. You can follow the construction easily from the above photo. Components needed are: Centralab 11 position rotary switch assembly No. 1402;

eleven (or less) Cinch No. 9827 single crystal sockets; a length of No. 12 tinned copper wire; a Mosely 75-5 adaptor plug; a piece of 300-ohm Twinlead; and a group of PR Precision Crystals. Use PRs you now have and add more frequencies as you want to. Mount the completed assembly on the front panel, plug into your crystal socket and you're ready to flit from frequency to frequency at will! It occupies less than 3½ inches of panel space. Many 10 meter phone men are already using the Crystal Shifter. Make it! Try it! — Petersen Radio Company, Inc., 2800 W. Broadway, Council Bluffs, Ia.

**PR** Precision  
CRYSTALS

SINCE 1934



**10 METERS**  
PR Type Z-5.

Harmonic oscillator. Ideal for "straight through" mobile operation. High activity. Heavy drive without damage in our special circuit.

**20 METERS**  
PR Type Z-3.

Harmonic oscillator. Low drift. High activity. Can be keyed in most circuits. High power output. Just as stable as fundamental oscillators.

**40 & 80 METERS**  
PR Type Z-2.

Rugged, low drift fundamental oscillators. High activity and power output with maximum crystal currents. Accurate calibration.