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# the canadian amateur



Volume One

February 1974

Number Twelve

## The U.S. 450 MHz Situation

A recent editorial in the Toronto FM bulletin commented on the apathy of Amateurs, especially VHF enthusiasts, to the threatened loss of some of our frequencies.

This is very real...already the FCC is considering apportioning a segment (224-225 MHz) of the 220 band to the Citizens Radio Service in the United States. (See November issue of The Canadian Amateur)

The FCC has now published Docket 19880 proposing a further allocation of our frequencies to other services. This time it is 450 MHz with the Emergency Medical Service seeking frequencies in that portion of the 450 band which the Texas Frequency Plan has set aside for 2M Repeater Command Control functions.

This new service is telemetry between public service ambulances and hospitals and will result in a shifting to lower channels for most repeater command functions already established on 450 MHz.

Secondly, this intrusion into our 75 cm band may be the thin edge of the wedge to usurp more and more of the frequency spectrum assigned, by international agreement, to the Amateur Experimental Service.

The possibility of spurious, harmonic and intermodulation interference, which we attempt to confine within our own bands, cannot be overlooked if this proposed intrusion into the Amateur spectrum becomes a reality.

In Canada, frequencies have been requested for use in the Emergency Medical Service, but in the 450-470 MHz band. It seems inconceivable that this service can be carried out satisfactorily in the commercially assigned UHF band in Canada but cannot be accommodated in the U.S. without abrogating international agreements.

The Canadian Amateur Radio Federation seeks our support through its member provincial societies to provide data on why we should not give up our frequencies.

Your co-operation in making your views known to the provincial organizations or to CARF will ensure a positive representation to the Department of Communications on behalf of the Amateurs of Canada.

We are indeed fortunate to have such agencies acting as watchdog over our privileges.

... G. A. Davis, VE3BBW, RSO VHF Chairman



**WILLIAM J. PORTER**  
U.S. AMBASSADOR - AMATEUR

(see story page 4)

# The Canadian Amateur

Official Journal of the Canadian Amateur Radio Federation Inc., Published Monthly

Managing Editor: Steve Campbell

Associate Editor: Doug. Burrill, VE3CDC

Volume 1

February 1974

Number 12

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All correspondence is welcomed and should be addressed to the Editor, The Canadian Amateur, Canadian Amateur Radio Federation, Inc. P. O. Box 356, Kingston, Ontario.

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- New Brunswick Amateur Radio Association
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- British Columbia Amateur Radio Association
- Amateur Radio League of Manitoba
- Saskatchewan Amateur Radio League

# From the Front Office

We wonder how many Amateurs read the article "DOC Liaison" on page three of the December issue and then considered its content?

Note that the Federation is the "official liaison organization" by the terms of our charter, has "established direct and personal liaison with DOC headquarters" and the the Department desires "the Amateurs to regulate and solve our own operational problems, through the Federation, with the least necessary reference" to the DOC.

In other words - if you have a problem, want advice, have a complaint, etc. -- contact your provincial Amateur organization or your national Federation instead of DOC. They, or we, will furnish the answer or information, (if not known will obtain the 'official' word from DOC) and take any appropriate action. The Amateur Experimental Service is a relatively minor service regulated by the Department and they are finding that they are spending a disproportionate amount of time dealing with Amateur enquiries.

This requested approach can have many benefits, not the least being increased activity and influence of your provincial and national organizations, leading to greater numerical support and thus strengthening our hand when submitting formal proposals and comment to the Department on Amateur matters.

The numerical support of the Federation is the sum total of the dues-paying members of provincial societies. This amounts to approximately 3,000 individuals and will directly represent over 30 per cent of the Amateurs of Canada when RAQI becomes a Regular member. We do not count the substantial number of Associate members in this total as a large percentage are already members of a provincial organization and the possibility exists that some become Associate members primarily to receive The Canadian Amateur.

Thirty per cent does not approach majority support and is small compared to the high percentages of membership support given to many other national Amateur bodies. But support of the provincial societies is growing and we are gratified to note this increasing membership.

The future of Amateur radio in Canada will depend, to a large extent, on a unified approach to the regulatory authorities. Support of the local club, the provincial society, and the national Federation will play an increasing role in the continuance of the well-being of the Amateur Experimental Service.

The day of the "loner", trusting in 'someone up there' to look after his interests, is long gone.

\* \* \* \* \*

We have received several noted from Amateurs asking how CARF, as the Canadian Amateur body, can justify support of the American Radio Relay League and its continued involvement in Canadian Amateur affairs. The answer is, of course, that we cannot.

But the present support and co-operation existing between the Federation and the League is based on "MUTUAL SUPPORT", not "support". This means support by the ARRL of CARF as the Canadian national organization and support by CARF of the ARRL as the national body of the United States and the international leader of Amateur Radio.

Neither the national Federation nor the League want the

ARRL to suddenly pull out of Canada or to disband their Canadian Division. Such a move would create discord and confusion in Canadian Amateur circles and would remove the presence of a Canadian on the ARRL Board of Directors. A gradual transfer of responsibility is envisaged with the first step being the official recognition of the Federation by the League. Several meetings would then take place between Federation and League officials to establish areas of responsibility, channels of communication, liaison procedures, etc.

Your national executive has noted the steady, rapid increase of support by the Amateurs of Canada and is confident that the expressions of support, given by the President ARRL and his Canadian officials at the August 1973 meeting, will result in positive action in the near future.

**Editor's Note:** A statement in the January issue of The Canadian Amateur mistakenly referred to 1973 as the fifteenth year of ARRL involvement with Amateur radio in Canada. That statement in "From the Front Office" should have read the fiftieth year of involvement.



Canadian Repeater Advisory  
Group

#### NEW FEATURE FOR REPEATER USERS A CRAG COLUMN

The second bulletin issued by the joint CARF/ARRL Cdn Div CANADIAN REPEATER ADVISORY GROUP (CRAG) notes that it will now bring this service to all readers of The Canadian Amateur, as a monthly feature starting with next issue.

Individual mailing to some 200 repeater licensees has brought on too many administrative and financial problems. Rather than mail future bulletins to each licensee, CRAG will present a column edited by Howie Cowling, VE3WT. Howie is a member of the CRAG executive committee and also a member of the ARRL repeater advisory committee in the U.S.A.

The recent CRAG bulletin reports that information from across Canada shows that 600 MHz spacing between 'in' and 'out' on 2 meter repeaters is rapidly becoming the standard. Adoption of the ARRL channel plan and the compatible Canadian channel plan conceived by VE4QI, 'Sonny' Gray (ex-VE3BTS) is also rapidly gaining favor, especially in crowded border areas such as southern Ontario and the adjoining states.

Auto-patches are still a rarity with the notable exception of Vancouver, Toronto, Sarnia and Quebec City.

The original CRAG bulletin was mailed to all repeater licensees from a DOC list and if your group executive or repeater committee hasn't seen them, ask your licensee for that issue.

A limited number of copies are available from the CRAG secretary, J. Lyle Ward, VE3CEZ, 2188, Iris Street, Ottawa, Ont.

A meeting of Yugoslavian Amateurs, together with an open international Amateur radio meeting, will be held on 12-14 July 1974 in Fazana. Amateurs from all over the world are invited to join in. For additional information write to M. Bogosavljev, YU1 SJ, Splitska 6/IV, 11000 BELGRADE, Yugoslavia. (IARU)

# look out! here comes TOMORROW

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### DISTINGUISHED DIPLOMAT-AMATEUR NEW U.S. AMBASSADOR TO CANADA

Hon. William J. Porter, 60, one of the top U.S. diplomats has been named by the U.S. president as ambassador-designate to Canada. He is an active Amateur in his home-base of Washington D.C. with the call K1YPE/W3AAC.

Born in G-land, he became a U.S. citizen in 1936 and pursued a career in the foreign service of his adopted country which took him into many countries in the Near, Middle and Far East. His most publicized job was as the chief of the U.S. delegation at the Paris meetings on the settlement of the Vietnam involvement.

For his long and outstanding career, Bill Porter was awarded the U.S. president's Award for Distinguished Federal Civil Service in 1967 and in 1968 was presented with the U.S. Department of State's Distinguished Honor Award.

While at the time of writing his appointment remained to be confirmed by the U.S. Senate and his credentials accepted by the Canadian Government, these are considered to be only formalities and he is expected to make the Canadian scene during February.

The Canadian Amateur Radio Federation welcomes Bill to Canada and is making him an honorary Associate Member of the Federation, a token of esteem which he will share with another well-known American Amateur, ARRL President Harry Dannals, W2TUK, and with the president-designate of the IARU, Noel Eaton, VE3CJ.

It is hoped that Bill will find time to enjoy his hobby with a "Portable VE3" suffix, from that fine VHF site, the U.S. Ambassador's residence in Ottawa.

\* \* \* \* \*

### REPORT OF EXECUTIVE MEETING 19 JANUARY 1974

Owing to inclement weather and other considerations, resulting in a lack of attendance by many CARF officials, the meeting resulted in the tabling of committee reports and an informal discussion on many topics.

These included:

1. Administrative machinery for dealing with future submissions to DOC as a result of certain changes in DOC administration,
2. Place of The Canadian Amateur in the Canadian scene and methods of increasing circulation and content,
3. A run-down of the CARF financial picture and expected future commitments,
4. Consideration of the creation of an Apprentice Amateur certificate and licence,
5. Background of CARF's decision to make Canadian QSL cards available and to have VE3 VCA -- Voice of the Canadian Amateur -- QSL cards printed for use by the station licensee (K.E. Rolison, VE3 CRL) and other CARF officials.

Full details of items 1, 2, and 4 will shortly be forwarded to the CARF Board and to the provincial organizations for their comment and details will be given in future issues of The Canadian Amateur.

Budgetary figures covering the administration of the Federation and the costs involved in the production and circulation of The Canadian Amateur indicate that national Federation is solvent and, with the expected increase in paid circulation of the publication, will be able to increase its size and content as forecast. The Editor would appreciate comment on changes he has, and will, make starting with the January 1974 issue.

The next meeting of the Executive is scheduled for Saturday, 6 April 1974 at Kingston, Ontario.

### INTERNATIONAL RECOGNITION BY ARRL FOR CANADIAN TALENT

#### VE3CJ Nominated for President I.A.R.U. VE3QB Gets ARRL Award

Two Canadian Amateurs have received international recognition for outstanding work in the Amateur Radio field.

Noel B. Eaton, VE3CJ, Waterdown, Ont., has been nominated for the presidency of the International Amateur Radio Union, to succeed Bob Denniston.

Larry Kayser, VE3QB, Ottawa, has received the ARRL annual Technical Merit Award.

Both announcements came at the ARRL Board of Directors meeting at Newington, Conn., on January 17.

Noel has been Canadian Director of the League's Canadian Division for a number of years and has served as an officer of the IARU for some time. His experience and wide contacts with the amateur organizations in the world and his administration of the Cdn. Div. will provide him with an excellent background and experience for his new position. His nomination by the Board now goes for ratification by the Union members.

For outstanding work on the Oscar program, Larry Kayser was given the well-deserved ARRL Technical Merit Award. Oscar fans will remember that it was Larry, in a marathon two or three days of non-stop work, who rescued Oscar 6 from an early demise in December 1972 and knocked together a control station in Ottawa when the "bird" ran wild and access to the U.S. control site was foiled by bad weather.

His award also reflects credit on those other Canadians and Canadian firms who came through in a matter of hours with the needed bits and pieces which normally would take days or weeks to get.

Larry is now, along with other Canadian amateurs (see January issue The Canadian Amateur), heavily involved in the next Oscar program.

In accordance with the constitution of the ARRL, the Assistant Director will fill Noel Eaton's place as Canadian Division Director.

George Spencer, VE2MS, Montreal, who is well known to eastern amateurs, will fill out Noel's unexpired term. (Noel was re-elected for the current two-year term with effect from January 1, 1974.)

Howie Cowling VE3WT, St. Catherine, has accepted position of Vice Director of Can. Div. to fill out George Spencer's unexpired term.

The congratulations of the Federation's executive were immediately extended to both Noel and George and the executive is certain that the progress made in the last six months in the co-operative efforts between the Federation and the ARRL Cdn. Div. will continue under George's leadership.

A meeting has been tentatively scheduled between the president of the Federation, Art Blick, VE3AHU, and some of the Federation officers with the new ARRL Canadian Division Director for some time in February in Ottawa, in order to discuss matters of mutual concern.

### OMISSIONS IN JAN "QST"

#### ARRL 2 METRE FREQUENCY PLAN

As a result of queries to the Federation on the 2 metre channel plan published in "QST" for January '74, CARF phoned Lou McCoy at ARRL HQ.

He confirmed that certain input/output channels had been omitted from the list in error. According to Lou, these are: 146.400/147.000; 146.430/147.030 and 146.460/147.060 MHz. Lou also noted that U.S. national calling frequency is 146.520 MHz.

# canadian capsule comment

## CANADIAN PHONE BAND EXPANSION

The national Federation requested information on any decisions that the Department of Communications may be taking on the expansion of the Canadian sub-bands for radio-telephone use on 75 and 40 meters as a result of the survey conducted in 1973.

The answer received: "We are still studying this proposal (of CARF that expansion is necessary and justified), however, when a decision has been reached we shall be pleased to write you further in this regard."

## PROVINCIAL EMERGENCY AMATEUR RADIO NET

The B.C. Civil Defence has changed its name, effective 1 January 1974 to Provincial Emergency Programme and the B.C.C.D.A.R.N. has also changed name. The new name describes the present role of the organization which is to plan for, and co-ordinate, the actions of all the agencies who may become involved in disasters, natural and man-made.

Quoting from a letter addressed to all members of the Net by Owen Evans, VE7 QT, Net Manager: "I would also ask you to note that I state 'plan' as the role of the organization. I know that Amateurs are known world-wide for their zeal in stepping into the breach and many times have I heard them say 'If there is a disaster, I will be there but otherwise don't bother me'.

Unfortunately, if something does happen and no proper preparation is made, chaos results. For this reason the organization asked me to set up the Amateur Radio Net. In this way, Civil Defence people know who to turn to for assistance.

There is another point I would like to emphasize, even though I know I have mentioned it before. It is vital in my mind that it be noted as criticism is often mistakenly levelled at Civil Defence over it -- Civil Defence has no intention of interfering with Amateur activities in any way. In fact, they are interested in advancing the cause of Amateurs as they realize the potential help that could come to them in an emergency. They do not control the Amateur Net; I do, on your behalf, at their request."

## ATLANTIC REPEATER NEWS

credit VE1 RPT Association

The New Glasgow repeater, VE1 HR, has changed frequency from 28-88 to 16-76. They expect to have a code identifier in operation shortly.

All Newfoundland repeaters plan to change frequency from 46-94 to 34-94 in the near future to conform to the national channel plan.

The St. John repeater, VE1 KZ, is contemplating a change in frequency, from 46-94 to 22-82, between the end of January and the second week of February.

One of the most abused procedures used on FM is that for breaking into a QSO.

When you wish to break, wait for that short period between transmissions (the tail period) and insert either your call sign or the word 'break'. If it doesn't work, and it frequently will not... try again.

DO NOT get frustrated and resort to a string of "break", "break", etc. In many areas two breaks mean, "This is an emergency, let me in quickly". Three breaks is reserved for Amateurs falling off tall buildings and passing along last messages with hand held units as they fall!

## NEWFOUNDLAND NEWS

### SONRA

Newfoundland Amateurs are authorized to substitute the prefix "VX" for the usual "VO" to celebrate the 25th anniversary of Newfoundland joining the Dominion. SONRA has been granted the use of "VX1 XXV" for use by the club station.

### QSL BUREAU CHANGES

Following the death of Ern Ash, VO1 AA, in November, Bill Coffen, VO1KM, St. John's, Nfld., has been appointed manager for the VO1 ARRL QSL Bureau. The address is PO Box 6 as in the past.

S.L. (Stan) Parsons, VO2AS, PO Box 232, Goose Bay, Labrador will be the manager for the VO2 ARRL QSL Bureau.

## NEW BRUNSWICK NEWS

### (LCARC)

Congratulations are due to the Loyalist City G.R.S. Radio Club for the fine job they did during our recent severe explosion and fire near the old Reversing Falls bridge.

Many may not know that this public-service-oriented club is really a fire/police department auxiliary and is called out to assist with all major rescues. Their training is excellent and, as most members will say, radio tends to be their weak point. They can put units of ten into hot spots within a very few minutes and each of the ten has been trained in at least three specialized tasks. A FB JOB!

## NOVA SCOTIA NEWS

### (NSARA)

The Nova Scotia Amateur Radio Association has its meetings on-the-air at 200 GMT Sunday afternoon with the last Sunday of each month being a business meeting. The December 16th meeting was a Christmas party. Each year one of the stations hosts "Santa Claus" and all the VE1 children call in and let Santa know what they want for Christmas. Also a draw was held from the names of paid-up members and Bob, VE1 QX and Jim, VE1 AUJ won handbooks and Bob, VE1 PZ and Ian, VE1 AUE, won a year's membership in CARF.

On the first Sunday before Valentine's Day, the NSARA sponsors the "LOLA" contest. This contest, only involving VE1 Amateurs, encourages our VE1 YL's to get on the air with the YL's working both YL's and OM's, but OM's working only YL's.

The NSARA issues a very attractive certificate for working all Nova Scotia counties. For those outside of VE1 land, it is necessary to work 15 counties on any band with VE1 mobiles and portables being qualified stations for contacts.

VE1 Amateurs must work 15 counties on one band and 10 counties on any other band. Stations exchange name, signal report and location; confirming QSL cards are sent to: C. Weeks, VE1 AKO, PO Box 47, Cleveland N.S. with return postage for the cards.

Counties in Nova Scotia are: Halifax, Hants, Lunenburg, Annapolis, Digby, Yarmouth, Kings, Queens, Colchester, Cumberland, Pictou, Antigonish, Guysborough, Cape Breton, Inverness, Victoria, Richmond and Shelbourne. Note that there are four counties in Cape Breton Island proper.



## NOVA SCOTIA NEWS (cont'd)

(HARC)

This year marks the 41st year of continuous operation of the Halifax ARC and this includes full operation during the war years. During WWI, visitors from all over Canada, the USA, the Commonwealth and the world were guests at club meetin. Another old-timer who passed away recently was Avarð Bishop, ex VE1 FE, of Kentville, formerly of Windsor. Avarð was also well-known in musical circles and was the founder and well-known broadcaster with the Annapolis Valley Radio Network.

In pre-war days, Avarð used his home-brew 75 meter Amateur transmitter to broadcast Christmas music to the shut-ins in the Windsor/Kentville area and this later expanded into the Evangeline Broadcasting System. The Department of Transport took a dim view of Avarð's activities with the music broadcasts and a veritable game of cops and robbers, fox and hounds, etc., took place.

## MID-EAST NEWS

The station VE3 AII/SU is in daily operation, circumstances permitting, from the Canadian Armed Forces Base, Cairo, Egypt.

The chief operator, Reg, and alternate operator, Ken, will be in SU-land for a six-month period and indications are that the station will continue operating under similar arrangements as existed during the previous UNEF operation (1957-67).

When this article was written, the station was using a HW-32 transceiver and Hygain 204BA beam, obtained through the offices of CANADIX, with a Collins KWM-2 and linear to be shipped to them in the near future.

The present base is probably of a temporary nature and an extensive antenna farm will not be erected until a permanent site is allocated.

## CANADIAN COUNTIES AWARD

credit SARC

Anyone wanting a complete list of Canadian counties for working the 4-C Award, Canadian Century Counties Club Award, sponsored by the Scarborough ARC, can obtain a list by sending a SASE (business size) to Bill Cate, VE3 HR, 169 Harewood Avenue, Scarborough, Ontario.

This is a handy little list as there is a mark-off space that can be used for marking off the counties as you work them and, if you fill in with the call, you will have an easy up-to-date list for sending in for the award.

## WHEELCHAIR ROUNDUP

by Rick Hedges VE3GJI

VE3QEH at Queen Elizabeth Hospital in Toronto has been awarded the DXCC certificate for working 100 countries and receiving QSL cards from them. This prestige award is given by ARRL. Earning it takes a lot of operating on the air combined with skill. Hearty congratulations to our fellow wheelchair operators at VE3QEH.

\* \* \* \*

Anyone who is interested in working Marty VE7AFY can hear him daily on 14.160 MHz between 2030 and 2100 GMT. He has just recently put up a vertical and he should be quite active.

\* \* \* \*

Ernie VE3HCW and Frank VE3EVU have both had a spell in the hospital. At the time of this writing, Ernie is home and back on the air and Frank was supposed to have an operation.

\* \* \* \*

Our annual Christmas cheese and cake sale was a tremendous success this year and we wish to thank all who supported us.

## CARF CANADIAN QSL CARDS

In mid-1973, the national Federation was approached by an Amateur, whose sideline is the printing of QSL cards, to take over his operations and run it as a CARF operation as a service to the Amateurs of Canada. Negotiations ensued with the result that Bruce will continue to print the cards with the Federation acting as his business manager.

This operation makes individual card designs, of Canadian manufacture, available to interested Amateurs.

The service is not intended to supplant the cards of those wishing to continue their personally designed, club or provincial design cards, but rather to make distinctly Canadian cards generally available to all Canadian Amateurs at a reasonable cost.

## 220 MHZ RUMORS...RUMORS...RUMORS...

NOW FOR SOME FACTS

As a result of the FCC grab for a chunk of 220 amateur frequencies for United States Citizen's Radio Service (CB), the rumors of this occurring in Canada abound in quantity and extent.

Despite earlier information from the Canadian Amateur Radio Federation to the Canadian fraternity that the grab was a U.S. domestic affair, the protests in U.S. magazines and by the ARRL worried a lot of Canadians.

The latest rumor quoted as a fact by a West Coast source as having come from the DOC was type approval testing 220 gear for CB use. An immediate investigation by the Federation revealed that the Department of Communications has no knowledge of any requests for type approval testing of such equipment.

Furthermore, it was learned that the DOC has written to the FCC expressing its concern in the matter of the proposed use of 1 MHz of the U.S. 220-225 MHz band for the Citizen's Band in the U.S.

This unilateral decision by the FCC would go against international agreements and would cause difficulties in border areas. It is understood that both Canadian and Mexican DOCs have written to the FCC on this matter.

## FATHER OF RADAR DIES

On December 6, 1973, Sir Robert Watson-Watt, the inventor of radar, or RDF (Radio Direction Finding), as it was first called, died in the U.K.

Born in Brechin, Scotland, Watt first patented a device for radiolocation in 1919, while a government meteorologist.

The initial device was intended for atmospheric studies, but was developed and improved by him until, in 1935, the basis for British wartime radar had been laid.

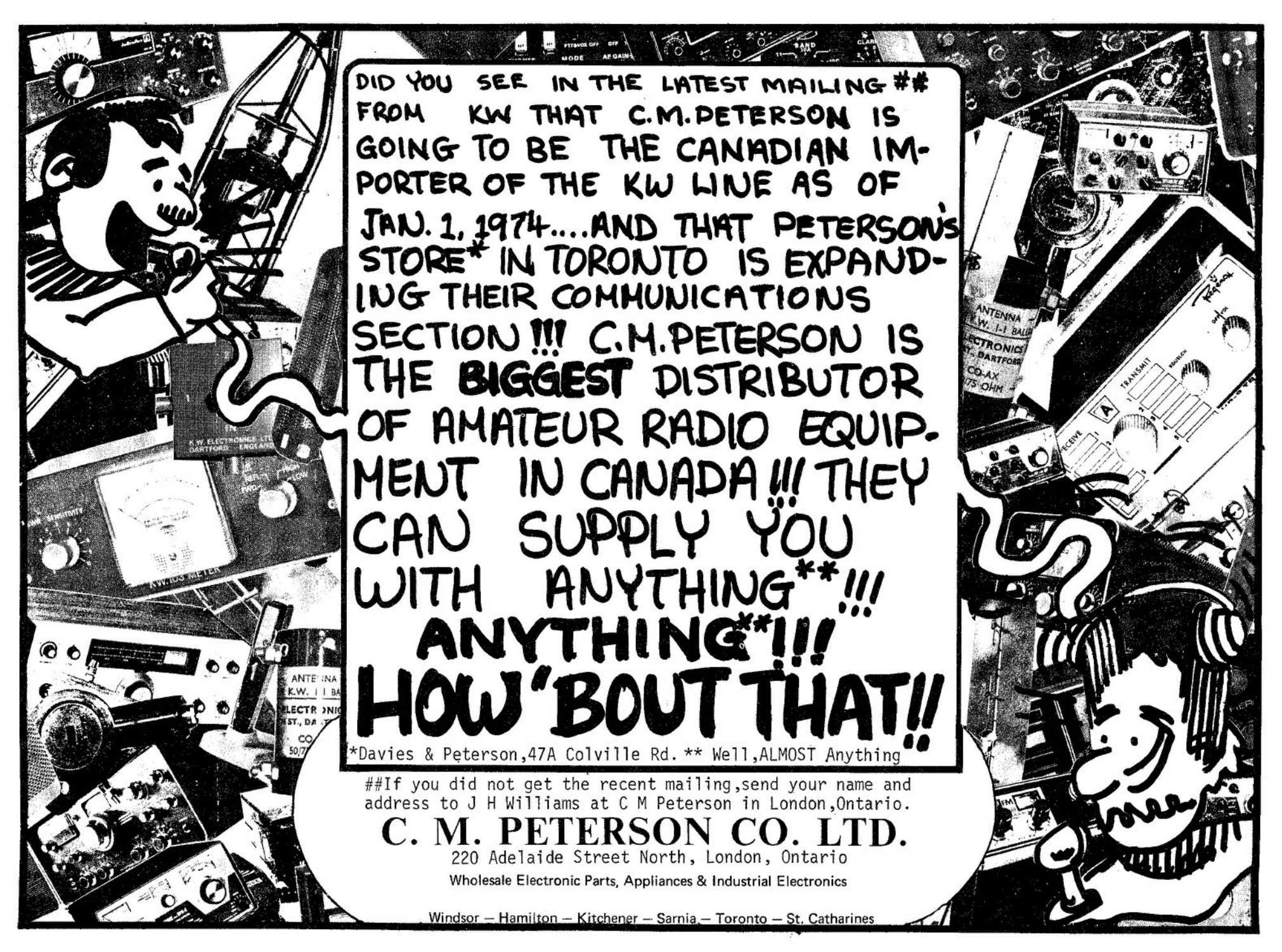
Watt's invention formed a major defensive weapon during the Battle of Britain, and enabled the U.K. to effectively resist the enemy attacks, which by that time had subjugated most of Europe.

Watt's collaboration with the U.S. on radar development undoubtedly had far reaching effects on the outcome of the war in other theatres.

Sir Robert was knighted in 1942, in recognition of his contributions. In 1946 he received the U.S. Medal of Merit from the United States.

Following the end of the war, he married a Canadian girl, and lived for several years in Thornhill, Ontario.

Sir Robert was a descendant of the famous James Watt, inventor of the modern externally condensed steam engine.



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## THE CANADIAN AMATEUR TO CARRY CANADIAN DIVISION ARRL NEWS

At the 7 Dec. 1973 meeting in Ottawa of the CARF-ARRL Cdn. Div. officials, it was agreed that the Cdn. Div. ARRL will produce a full half page to be devoted to the ARRL Canadian Division news. While this column will be edited by Holland Shepherd, VE3DV, it is hoped to eventually include articles by all Section Communication Managers and Assistant Directors.

### CANADIAN DIVISION ARRL REPORT 1973

In recent years it has not been possible to comment upon membership growth in the Division, since this report must be written prior to the receipt of membership figures for the end of the year.

The same holds true for 1973, but amateur licenses show an increase of some 4 per cent.

It is logical to assume, therefore, that membership will show an equivalent increase. It is also gratifying to note the steady flow of Life Membership applications, in spite of higher cost to Canadians.

Any report of activities in Canada in the past year must be dominated by two matters, the questionnaire sent to all Amateurs by the Department of Communications, and the agreement reached between the League and the Canadian Amateur Radio Federation. Since the results of the D.O.C. questionnaire were sent to all officers and directors, it will not be dealt with at length in this report. It should be mentioned, however, that it provides much statistical information regarding Amateur Radio in Canada, all of which will be useful for some years to come.

Perhaps the most important event of the year, and one which will undoubtedly affect Amateur Radio in the years ahead, was the agreement reached with CARF during the visit of President Dannels to the convention of the Radio Society of Ontario in August.

As a result of a meeting with officers of the Federation, it was agreed that wherever possible, joint submissions would be made to our government, to avoid confusion, and that dissemination of news would be achieved through the facilities of the Federation. Officers and Directors will have noted that they have, as a result, been receiving copies of The Canadian Amateur, published monthly except for the months of July and August.

In addition, the two organizations have jointly established two advisory groups, on Repeaters and Emergency Communications. We have also co-operated on several minor problems which were not included in the original agreement.

I am pleased to be able to report that the willingness and the desire to work together has been most apparent and I hope and expect that it will continue to the obvious advantage of the individual amateur.

The reorganization of the Department of Communications referred to in my report last year has continued, and even expanded during 1973. While this, and retirements, have resulted in a considerable change of personnel, our relations continue to be excellent. There have been no changes in our regulations during the year nor do I expect any in the immediate future, since members of the Department are just settling into the new organization. Two countries, Costa Rica and Denmark, have signed reciprocal licensing agreements with Canada, and a third agreement, with the Philippines, should be signed shortly.

For many years the Canadian Division has been a member of the Canadian Radio Technical Planning Board, a joint

user-industry group set up and supported by the D.O.C. to provide advice to the Department on equipment standards, regulations and similar matters. At my request the Board placed on the agenda of its Annual Meeting the subject of radio frequency interference to home entertainment devices. As a result, a committee, on which the Division will be represented, was established to consider the whole problem, both from a technical and administrative point of view.

The League's films on Amateur Radio continue to be in heavy demand in Canada. Fine Business, produced in Canada in 1972, is also well booked in both Canada and the United States, and Headquarters has had to purchase a third copy for distribution in the latter country.

It is pleasant to record the steady use being made by Canadian amateurs of Oscar 6; in addition, it is being largely controlled by an automated system built and operated by VE3QB in Ottawa. As well, he is building, with the help of a small group, the 435 MHz beacon for Oscar 7, and operated the Division's ten meter beacon, VE3TEN.

I should like to record the help I have received from Vice Director Spencer, and the other elected and appointed officials of the Division. Without them and their interest it would be difficult if not impossible to administer such a large division, and I am most grateful to them.

Noel B. Eaton, VE3CJ  
Director, Canadian Division ARRL

### CANADIAN WINTER CAR RALLY

The 22nd Annual Canadian Winter Car Rally will start from Toronto's City Hall at 6:30 pm Friday, Feb. 8, and head north and west to Ottawa. Entrants will follow a southerly route back to the Toronto area, finishing at the Toronto International Auto Show in Malton, Sunday Feb. 10. Major check-point areas are Kingston, Barrie, Bancroft, Smiths Falls, Peterborough and Camp Borden.

Amateur radio will be used this year to control and monitor the progress of the competitors. Where possible, communications will be made through the various auto-repeaters covering the route with a 75M network for link-up and to provide communications in areas outside the normal range of the area repeaters.

An enthusiastic response was received from the local Amateur radio clubs in the area and all check-point stations have been allotted, normally with two operators. This could be the largest organized Amateur radio exercise yet conducted in Canada.

### "ONTARS" NET SECOND ANNIVERSARY

On 8 January, 1974, the RSO sponsored service net ONTARS celebrated its second anniversary.

Originally designed to provide an outlet for the expanding group of blind and disabled amateurs, ONTARS was an overnight success.

ONTARS presently meets on 3755 KHz daily from 7 a.m. to 6 p.m. and provides Ontario amateurs and others with a single meeting place to hear weather and road reports and to arrange for QSOs or the passing of traffic off the net frequency.

VE3DV, Amateur Radio News

The 1974 edition of the RSGB callbook is now available and can be obtained from RSGB, 35 Doughty Street, London, WC1N 2AE for 75p post paid.

(IARU)





# hallicrafters

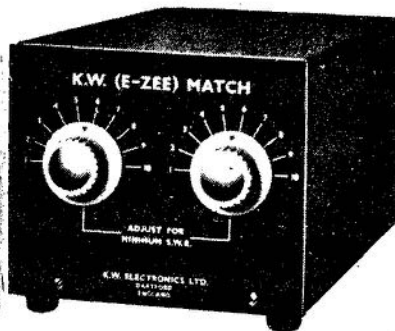
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**KW-107**



**E-ZEE Match**

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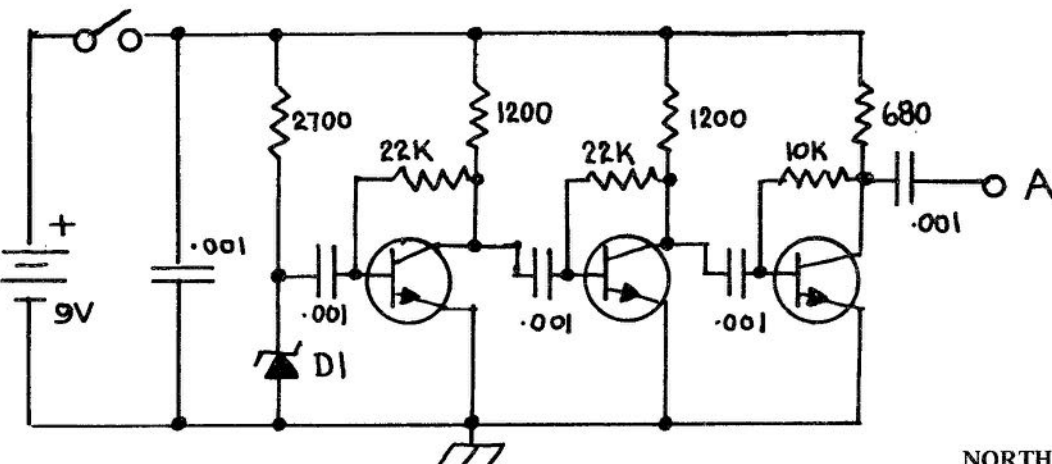
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CANADA

V7P - 2L6

# Noise Generator / Antenna Noise Bridge



D1 = 1N752 (5.6 V/400mA)

Transistors = 2N3852

T1 = 4-5 quadrifilar turns No. 26 Formal wire on 0.551 Philips ferrite core.

R1 = 200 ohm Cermet linear taper pot (CTS mfr)

Battery drain = 22mA

## NOISE GENERATOR/ANTENNA NOISE BRIDGE

Some form of a simple noise generator was required for use with an experimental RF impedance bridge that had been constructed for work on HF antennas. A search of the literature gave such a circuit in the Dec 1967 issue of QST and components, etc., were substituted on basis of availability.

The noise generator - ending at position 'A' - performed very well in this function and Ken, VE3CRL, added the additional circuitry to construct an antenna noise bridge. Excellent results have been obtained and both bridges have been extensively used in adjusting antennas, especially those used on Field Days where the bridges have proven invaluable.

The electronic circuitry is readily fabricated on a piece of VERO board - 0.1x0.1 matrix and the noise generator can be housed, with battery, in a Hammond 1411D handy-case. The Antenna Noise Bridge requires a larger handy-case, size depending on terminals used and space needed for pointer and marking of R1.

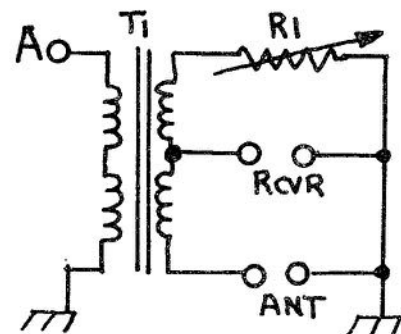
Prior to use as an antenna noise bridge, it is necessary to calibrate R1 and this is achieved by attaching various values of resistance to the ANT terminals and adjusting R1 for a distinct, full null on the receiver attached to the RCVR terminals.

To use, attach feed line to antenna to ANT terminals, receiver to RCVR terminals, tune receiver to frequency of interest and adjust R1 for null. Reading obtained will give the input resistance of the feed-line. It is recommended to use as short a feed-line as possible - ideally attach bridge directly to antenna input.

To check for resonance, adjust R1 to the specified input resistance, and tune receiver for null. This will give frequency of resonance of antenna and the antenna can then be pruned, or lengthened, to obtain resonance at operating frequency.

The bridge can also be used to obtain the input resistance of linear amplifiers and devices such as low pass transmitting filters, etc.

VE3AHU



## NORTH WEST ONTARIO NET

Amateur Radio News

Rob Crewson, VE3 BRZ of Fort Frances, and manager of the North West Ontario Net which meets daily on 3750 KHz at 1915 EST reports that fairly consistent liaison has been established with Southern Ontario by VE3EUI to the Ontario Phone Net (OPN) and by VE3EFX and VE3GOZ to the Chicken Junction Net (CJN).

Rob also reports a good link to the Manitoba Evening Phone Net (MEPN) which meets daily on 3765 KHz at 2000 EST through VE4LU and VE3DFF.

The period of operation allowed by the U.K. reciprocal licence (G5 AAA series), has been extended from three months to six months. (IARU)

## COLLECTOR'S CORNER

Antique collectors abound in many hobbies and amateur radio is no exception. There are a number of enthusiasts in Canada but it is not known if there is any communication between them for trading information and artifacts of a bygone age in radio. With that in mind, THE CANADIAN AMATEUR would devote space to collectors who wish to trade or get information from like-minded amateurs.

There is a collection of historical radio gear, dating back to Marconi's Signal Hill days in Heart's Content in Newfoundland, one in Quebec and one in Ottawa plus the Museum of Science and Technology's collection under Ernie deCoste.

In Kingston there is a military communications equipment museum (still hunting for an Army 52 set) and there must be many others.

Fred Hammond, VE4HB, of Hammond transformer fame, is a collector of National receivers... a sort of specialist.

The Canadian Vintage Wireless Association in Toronto has a publication entitled, appropriately enough, "The Cat's Whisker". If you don't recognize that term, you won't recognize a 'vintage' radio.

If you are one of these collectors, or know of one, please send in your name to the Collectors Corner, THE CANADIAN AMATEUR, P.O. Box 356, Kingston, Ont.

If there is a reasonable response to this idea, the names of those interested will be published in this journal and, if it proves worthwhile, a regular column will be devoted to antique radio.

**CANADIAN QSL CARDS ARE AVAILABLE FROM CARF**

This service is open to all Amateurs.

CARF members may have the emblem added at no extra cost.

Good variety of distinctly Canadian designs and color schemes.

Can be printed in lots from 200 up.

For package of samples, send 25 cents in stamps to: C.A.R.F. QSL DEPT. P.O. Box 356, Kingston, Ont. K7L4W2.

**CANADIAN RADIO REGULATIONS HANDBOOK TEMPORARILY IN SHORT SUPPLY**

The Canadian Amateur Radio Federation wishes to thank its members for the popularity of the Handbook.

Unfortunately, due to the popular demand for the publication, the Federation has temporarily run out of copies.

As a result, we request that no more orders be sent in for the handbook until the advertisement re-appears in The Canadian Amateur indicating that more have been printed.



# the canadian amateur

*The official journal of the Canadian Amateur Radio Federation offers you news and information on the Amateur scene to aid in the fullest enjoyment of your hobby.*

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**BANNED COUNTRIES LIST**

Cyprus\*, Gabon, Iraq, Pakistan, Turkey, Libya, Khmer Republic\*\*, Viet-Nam\*\*, Yemen.

\*-Amateur operations suspended except for operation on special occasions when call sign 5B4 will be used and communication with all other countries is permitted.

\*\*-Station XV5AC in Viet-Nam and XU1AA in Khmer Republic have been granted permission to communicate with stations in other countries.

**THIRD PARTY TRAFFIC AGREEMENTS**

Bolivia, Chile, Costa Rica, Dominican Republic, Honduras, El Salvador, Israel, Mexico, Peru, Venezuela, U.S.A. (Territories and Possessions), Trinidad and Tobago.

**RECIPROCAL LICENCING AGREEMENTS**

Belgium, Brazil, Dominica, Dominican Republic, France, Ecuador, Federal Republic of Germany, Guatemala, Israel, Peru, Luxembourg, Mexico, Netherlands, Norway, Nicaragua, Portugal, Republic of Panama, Senegal, Sweden, Switzerland, U.S.A., Uruguay, Venezuela and Denmark.

Note: All Commonwealth countries are eligible for reciprocal Amateur operating privileges unless evidence that a country does not grant reciprocal operating privileges to Canadian Amateurs.

**AUTHORITY TO OPERATE IN THE U.S.A.**

The national Federation has copies of the FCC Form 410. This form, properly filled out and stamped, is necessary for Canadian Amateurs to operate their equipment while in the United States. Send a self-addressed, stamped envelope (marked U.S. FORM) to CARF, Box 356, Kingston, Ont. K7L4W2.

**RADIO HANDBOOKS FOR THE FRANCOPHONE**

There are two excellent handbooks for the Canadian Amateur, written in French by Canadians. They are useful as a training aid for those who wish to obtain their Amateur certificate.

The books are: "Electronique d'Amateur", published by the Quebec provincial society, Radio Amateur du/of Quebec. It is available from the secretary, RAQI, P.O. Box 1516, Quebec, P.Q. for the price of \$6.00.

"Electrinique Pour Le Radio Amateur" is priced at \$8.50 and is available from Librairie Beauchemin Ltee, 450 Beaumont St., Montreal, P.Q. or Payette Radio Ltd., 730 St. Jacques St., Montreal.

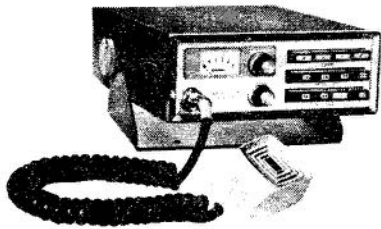
**MEMBERSHIP RENEWALS**

The membership committee has been happily at work making the necessary changes on the computer membership cards and forwarding the CARF Associate Member cards. Please note that 'original' members receive a certificate and 'renewal' members an attractive, wallet-size membership card.

The committee has commented on the relatively high percentage of Amateurs who have renewed for more than one year and wish to thank all those that enclosed short notes about the work of our national Federation and the content of The Canadian Amateur.

A sample of this : "We are very pleased to read the happenings in Amateur radio in Canada via The Canadian Amateur and are very proud that we now have a Canadian magazine that we can support and enjoy. Please continue with the good and most vital work and be assured of our support!"





**HW-202 SPECIFICATIONS—RECEIVER**—Sensitivity: 2 dB SINAD\* (or 15 dB of quieting) at .5 $\mu$ v or less. Squelch threshold: 3 $\mu$ v or less. Audio output: 2 W at less than 10% total harmonic distortion (THD). Operating frequency stability: Better than  $\pm 0.015\%$ . Image rejection: Greater than 55 dB. Spurious rejection: Greater than 60 dB. IF rejection: Greater than 75 dB. First IF frequency: 10.7 MHz  $\pm 2$  kHz. Second IF frequency: 455 kHz (adjustable). Receiver bandwidth: 22 kHz nominal. De-emphasis: -6 dB per octave from 300 to 3000 Hz nominal. Modulation acceptance: 7.5 kHz minimum. **TRANSMITTER**—Power output: 10 watts minimum. Spurious output: Below -45 dB from carrier. Stability: Better than  $\pm 0.015\%$ . Oscillator frequency: 6 MHz, approximately. Multiplier factor: X 24. Modulation: Phase, adjustable 0-7.5 kHz, with instantaneous limiting. Duty cycle: 100% with  $\infty$  VSWR. High VSWR shutdown: None. **GENERAL**—Speaker impedance: 4 ohms. Operating frequency range: 143.9 to 148.3 MHz. Current consumption: Receiver (squelched): Less than 200 mA. Transmitter: Less than 2.2 amperes. Operating temperature range: -10 $^{\circ}$  to 122 $^{\circ}$  F (-30 $^{\circ}$  to + 50 $^{\circ}$  C). Operating voltage range: 12.6 to 16.0 VDC (13.8 VDC nominal). Dimensions: 2 $\frac{3}{4}$ " H x 8 $\frac{1}{4}$ " W x 9 $\frac{1}{2}$ " D.

\*SINAD =  $\frac{\text{Signal} + \text{noise} + \text{distortion}}{\text{Noise} + \text{distortion}}$

## New Heathkit 2-meter Transceiver ONLY \$237.<sup>50</sup>

It's an all solid-state design that you can build and completely align without special instruments. And this compact little beauty gives you 36 channel capability with independent push-button selection of 6 transmit and 6 receive crystals. 10 watts minimum output into an infinite VSWR without failure. And for the ultimate in convenience there's the optional tone burst encoder for front panel selection of four pre-settable tones. The HW-202 kit includes two crystals for set-up and alignment and simplex operation on 146.94; push-to-talk mike; 12-volt hook-up cable; heavy duty clips for use with temporary battery; antenna coax jack; gimbal bracket, and mobile mounting plate.

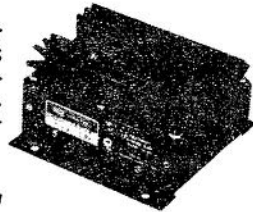
Kit HW-202, 11 lbs., mailable .....	237.50*
Kit HWA-202-2, Tone Burst Encoder, 1 lb. ....	32.95*
Kit HWA-202-1, AC Power Supply, 7 lbs. ....	39.95*
Kit HWA-202-3, Mobile 2-Meter Antenna, 2 lbs. .	29.95*
Kit HWA-202-4, Fixed Station 2-Meter Antenna, 4 lbs. ....	25.95*

### ... and here's 40 watts out for your 10 watts in

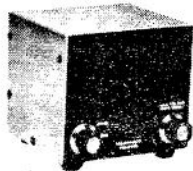
The Heathkit HA-202 2-Meter Amplifier works with any 2-meter exciter delivering 5-15 watts while pulling a meager 7 amps from any 12 VDC system. No additional power supplies are required. All solid-state components mount on a single circuit board for easy two-evening assembly. Manual shows exact alignment procedures using a VOM or VTVM. Connecting cable and antenna cable are included.

Kit HA-202, 4 lbs. .... 89.95\*

**HA-202 SPECIFICATIONS**—Frequency range: 143-148 MHz. Power output: 20W @ 5 W in, 30W @ 7.5W in, 40W @ 10 W in, 50W @ 15 W in. Power input (rf drive): 5 to 15W. Input/output impedance: 50 ohms, nominal. Input VSWR: 1.5:1 max. Load VSWR: 3:1 max. Power supply requirements: 12 to 16 VDC, 7 amps max. Operating temperature range: -30 $^{\circ}$  F. to +140 $^{\circ}$  F. Dimensions: 3 $\frac{1}{2}$ " H x 4 $\frac{1}{4}$ " W x 5 $\frac{1}{2}$ " D.



**\$89.95**



**\$39.95**

### ... then there's this perfect 2-meter tune-up tool

The Heathkit VHF/SWR Bridge tests transmitter output in power ranges of 1 to 25 watts and 10 to 250 watts  $\pm 10\%$  of full scale. 50 ohm nominal impedance permits placement in transmission line permanently with little or no loss. Built-in SWR bridge for tuning 2-meter antenna for proper match, has less than 10-watt sensitivity.

Kit HM-2102, 4 lbs. .... 39.95\*

**HM-2102 SPECIFICATIONS**—Frequency range: 50 MHz to 160 MHz. Wattmeter accuracy:  $\pm 10\%$  of full-scale reading.\* Power capability: To 250 W. SWR sensitivity: less than 10 W. Impedance: 50 ohms nominal. SWR bridge: Continuous to 250 W. Connectors: UHF type SO-239. Dimensions: 5 $\frac{1}{4}$ " W, 5 $\frac{1}{4}$ " H and 6 $\frac{1}{2}$ " D, assembled as one unit.

\*Using a 50  $\Omega$  noninductive load.

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