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PRESIDENT CALGARY A R A
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CALGARY, ALTA



the canadian amateur

Volume Two

October 1974

Number Eight

The 1979 Frequency conference

Recent publications and pronouncements from various sources have been drawing attention to the fact that in 1979 the International Telecommunications Union will be engaged in negotiating the slicing up of the radio spectrum amongst its members and the Amateur services had better do some homework. We should come up with constructive suggestions for the retention of HF and for the world above 144 Mhz, such as satellite communications in the gigahertz spectrum and other exotic areas which have come to the fore since the last conference in 1959.

The Canadian Amateur Radio Federation has already held discussions with DOC and ITU personnel and has been assured of an input to the DOC preparatory committee which will be doing Canada's homework for the conference, starting this fall. The Federation is in the process of getting together a committee and advisors to prepare a brief for the committee.

Which brings us around to a discussion on the justification for the Amateur Experimental Service in Canada.

The Canadians who fool around with radio, armed with certificates of proficiency in same from the federal government of Canada, are permitted to do so in bands assigned to the Amateur Experimental Service (AES) and without certificates, in the General Radio Service. The terms of reference or justification for the AES in Canada has only one point in common with that of the United States, in that each subscribe to the International Telecommunications Union definition of the Amateur service. After that the terms of reference diverge to the extent that a number of things which are permitted to or even required of U.S. amateurs are not permitted in Canada. The U.S. FCC leans heavily on the public service and emergency operations by its Amateurs for the justification of their existence, and have even written it into

the FCC regulations. This is NOT the case in Canada. In fact, the permitted uses of the Amateur bands in Canada do not mention either of these laudable activities.

If any Canadian amateurs are under the illusion that their retention of the amateur frequencies is contingent upon such activities their error is in applying what they read in U.S. magazines to the Canadian scene. The official view in Ottawa could hardly be more accurately reflected than in some articles which have appeared lately in Canadian club bulletins, written by people whose realistic view of the AES in Canada is not obscured by applying what they read and hear from south of our border pertaining to the reasons for the existence of the AES.

Let's look at two of them and then take a look at probably the most believable reason why we have these bands and why we might just be able to retain them in somewhat their present form.

Here is VE3EQF, Chris Turner, writing in the Toronto West Side ARC bulletin; "How do we come up with an answer that will justify our keeping out bands? Remember that the amateur bands, just like your ticket, was not God-given. The governing bodies created the Amateur bands and they can just as easily destroy them. You don't even possess a right to go on the air; your ticket is like a driver's licence, a privilege, and don't ever kid yourself that it is something more. Amateur radio is first and foremost a hobby and that is not going to impress a lot of people in Ottawa, or anywhere else for that matter. All this talk about being of service to the public and being ever alert to rush to the public assistance in times of national emergencies to my way of thinking is a load of baloney. The last major worthwhile role that hams played a part in around here was the Hurricane Hazel disaster, and that was 19 years ago. The number of hams that have the rigs and know-how to handle a disaster are few and far between. For years I dreamed of picking up an SOS signal

[Continued on Page 8]

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- Saskatchewan Amateur Radio League

From the Front Office

We have read the short article about the WARC Maritime Conference (appearing in the October issue of QST) that was held in Geneva this Spring. While the conference only had "a slight potential for impact on the Amateur service", IARU Official Observers attended, including the newly-elected President, Noel Eaton, VE3CJ.

Your national Federation is a firm believer in the worth and value of IARU and we consider that the Union is very necessary for the continued well-being of the international Amateur service.

But we are concerned about present Canadian involvement in the direction of the Union. Canada is represented to IARU by the American Radio Relay League with ARRL also being the Headquarters of the Union and the member society for the United States. To date, no effort has been made by the League, or its representatives to the IARU, to keep the Amateurs of Canada informed of the activities and work of the Union...except by the brief remarks that are made in QST from time to time and sometimes months after decisions have been made.

Certainly the Amateurs of Canada are not being consulted on any matter pertaining to the activity and development of the Union. Although your national Federation, for some years, has requested such information and the opportunity to discuss and advise on the problems that the Union must be facing, this request has constantly been denied.

This denial is all the more surprising with the President IARU a Canadian Amateur. And after the President ARRL making the statement that he could see no reason why CARF should not be consulted as your national Federation does represent as many Amateurs in Canada as does the League.

This aura of secrecy can not fail to have a poor influence on the support of IARU efforts on behalf of the Amateur service. With a World frequency conference scheduled for 1979, it must be apparent to every Canadian Amateur that every effort must be made to keep us conversant with trends of thinking and decisions reached by the IARU prior to that conference.

PROMINENT MARITIMES AMATEUR IS ACCIDENT VICTIM

Amateurs will sorely miss VE1HN Roy Cosman, of Saint John who was killed in a Labor Day traffic accident in Prince Edward Island.

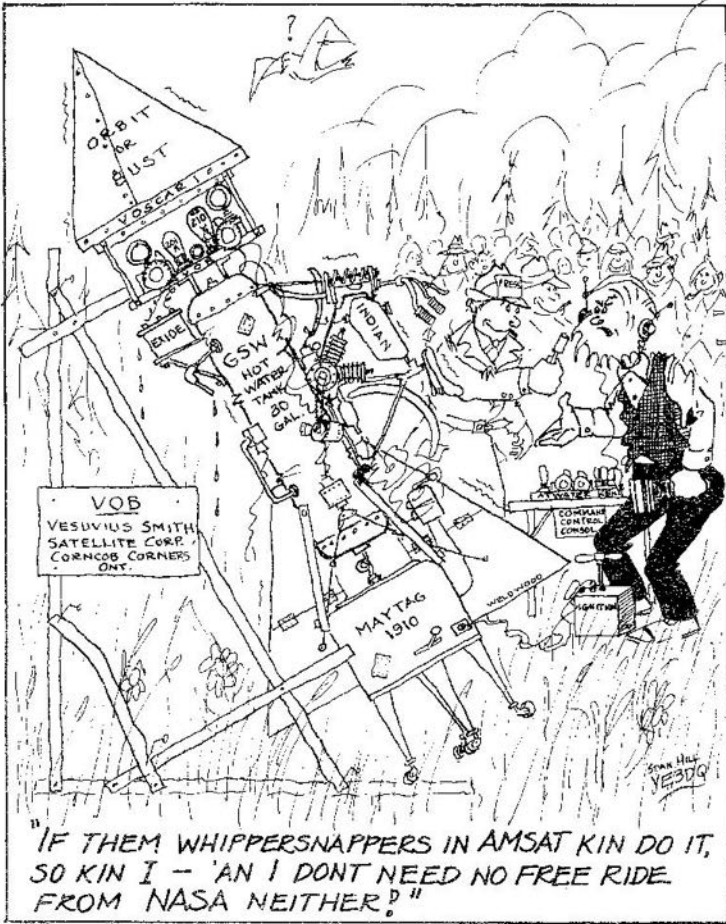
Roy was prominent in local affairs in his work with Air Cadets, service clubs and church work and was a past president of the Loyalist City ARC. His long time executive experience with the Canadian Mental Health Association was being devoted to the organization of the 1976 Hamfest to be held in Saint John.

450 AND 220 RUMBLES AGAIN

The United States FCC proposes use of non-interfering frequencies in the 420-450 MHz band for high accuracy locating of off-shore oil drilling rigs. The system, HIRAN, would use these frequencies on a temporary basis until the first of 1978 when it will go to 2900 MHz area. This band is a shared one, with radiolocation having a primary use and Amateurs using it on a secondary basis.

As for 220 MHz, "HAM RADIO" reports that politics around the Nixon resignation may affect FCC appointees who would stir the pot again on the 220 MHz snatch for CB users.

SHORT-CIRCUITS



PERRIN ELECTED TO ITU 60 DAYS

For the first time, a Canadian has been elected to the International Frequency Registration Board (IFRB), of the International Telecommunication Union (ITU). F. G. Perrin of the federal Department of Communications was chosen at the World Administrative Radio Conference on Maritime Telecommunications held in Geneva. One Board member is elected from each of the five regions into which the 146 member countries of the ITU are divided.

Mr. Perrin, who is currently Director of International Arrangements, International Telecommunications Branch has, on many occasions, represented Canada at International Conferences on telecommunications. Mr. Perrin is to take up his new duties in Geneva starting from 1975, and will hold office until the next Plenipotentiary Conference of the ITU scheduled for 1978.

CRC TO HAVE BRANCH LAB IN WINNIPEG

A small branch laboratory of the Communications Research Centre will be established in a new \$11.5 million research facility being built in Winnipeg by the Defence Research Board.

CRC's entire radar research program, presently a staff of 29 with an annual budget of around \$1.2 million, will be transferred to new quarters in the Defence Research Establishment, Manitoba, which is expected to be completed in 1977. The move will concentrate virtually all federal government research in Winnipeg.

BANNED COUNTRIES LIST

The Federation received a list of banned countries from DOC during the last week of August which was one they got from the ITU in Geneva, dated July 19th, 1974. The list does not include Jordan. This revises the last written information from the Department which was received by the Federation sometime ago. Some confusion existed as to the exact status of Jordan at the time of King Hussein's (JY1) visit to Canada and DOC requested clarification of its status from ITU after some Amateurs queried the CARF bulletin on the visit of JY1 which, based on the then available information, stated that Jordan was on the banned list.

HOW OLD IS AMATEUR RADIO?

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

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

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Canadian Repeater Advisory Group

Canadian Frequency plan

CRAG is now in the process of asking its correspondents to look at the ARRL plans for 450 mHz and six meters and to suggest a frequency plan suitable for Canadian needs. These plans will be compatible with the ARRL plans because of the need for frequency co-ordination in border areas.

Additional frequencies for the two meter band are also being considered to meet the needs of areas which have already used the first five suggested Canadian channels.

The 220 mHz ARRL plan has already been published in this column and here are the 450 mHz and the six meter ARRL plans adopted in July at the ARRL national convention in New York, as received from w2ODC, Howie Lester, chairman of its VHF Advisory Committee.

CRAG suggestions for Canadian channels will be published after comments are received from its correspondents.

20 kHz CHANNELS

SIMPLEX	RPTR IN	RESERVE	SIMPLEX	RPTR OUT	RESERVE
51.51					
51.99					
	52.01			53.01	
	52.03			53.03	
	52.05			53.05	
	52.05			53.07	
	52.07				
		52.09			*53.09
		52.11			*53.11
	52.13			53.13	
	52.15			53.15	
	52.17			53.17	
		52.19			*53.19
		52.21			*53.21
	52.23			53.23	
	52.25			53.25	
	52.27			53.27	
52.29					*53.29
52.31					*53.3
					*53.31
	52.33			53.33	
	52.47			53.47	
52.49					53.49
52.51					53.51
52.525			53.53		
	52.55			53.55	
	52.57			53.57	
		52.59			
		52.61			
	52.63			53.63	
	52.65			53.65	
	52.67			53.67	
		52.69			53.69
		52.71			53.71
	52.99			53.99	

* Model RC FREQS 53.1, 53.2, 53.3, 53.4, 53.5, 53.6, 53.7, 53.8 are protected.

450 MHZ PLAN

- 420.05 — 430.950 aux link pairs; control
- 431.00 — 435.00 unscheduled
- 435.00 — 438.00 reserved for satellite comm;
- 438.20 — 440.00 ATV LSB
- 440.00 video carrier (A.F.: 444.50)
- 440.00 — 441.80 USB
- 442.00 — 444.95 RPTR out
- 445.00 — 446.95 Simplex; aux links
- 447.00 — 449.95 RPTR in
- Notes: 449.50/444.50 not a repeater pair since 444.50 reserved for ATV (4.5 mHz Intercarrier) Audio
- 449.50 Simplex 'DX'
- 50 kHz Channel Spacing

FACTORS:

- Satellite Band 435.00 — 438.00 mHz
- At least one Wideband TV channel with 4.5 mHz Sound/Video
- Modifications requires to commercial rigs
- Possible interactions with adjacent commercial stations
- Major slice recognized for high performance stations
- Need for set aside for Aux & Control Stations pairs.

NEW REPEATERS

A new repeater is now in operation at Ingleside, Ontario, covering 401 freeway from Cornwall to Prescott and getting into Ottawa and across the St. Lawrence to N.Y. state towns. The temporary call is that of the owner, John, VE3G0X. This will be changed to a call assigned to the repeater itself. The channel is 16/76.

Rumors float in from the Coast that VE7DRZ is a new repeater situated on the Queen Charlotte Islands on 34/94. Likewise it was heard that VE1JD, Sydney, N.S. is changing from 46/94 to 34/94. VE1AEH, Mount Blomidon, has been off the air for a period and with the coverage being experienced from Bridgetown, Ve1BO, on 46/94 and that expected from Gore, VE1LHR, on 04/64 (due in September) it may not be reactivated. A group is planning to put up a repeater on Mount Champlain, 20 miles NW of Saint John, N.B. on a commercial site; If they can beat the many megawatts from the TV FM and commercial stations they will have magnificent coverage of Southern N.B. and Nova Scotia from its 2000 foot location. No call or frequency is known at this time.

Comments on the ARRL 450 mHz plan have already been received and put up arguments for low in and high out, rather than the opposite, which is recommended by ARRL.

HOW TO FINANCE A REPEATER

A number of amateurs along both sides of the St. Lawrence River between Cornwall, Ont., and Ogdensburg, N.Y. decided to set a repeater which would cover their immediate area and also fill in hole on the 401 freeway on the Ontario side.

Although some surplus gear was available and re-working was in progress, one of the boys said he thought that they should go solid state for various reasons such as low maintenance time. He said that if they went solid state he would kick in \$300 towards the cost.

On a Saturday afternoon in late August, after a discussion on the advantages of solid state and noting the U.S. Amateur's generous offer, it was matched by a Cornwall Amateur. This started a "telethon" on two simplex which by the end of the afternoon had netted a large number of \$25.00 pledges and some which were higher, for a total near to a G note, which will set them up in business. The tube rig on which they are working will be kept as a spare.

The repeater will be near Canton, N.Y. because of the higher ground on the U.S. side. Proposed channel is 6.31-6.91 with about 10 watts.

Remote Control Frequencies

VE3ZS

Many Amateurs are also remote control model enthusiasts who employ radio transmissions for control purposes.

From time to time the questions are asked "What frequencies may be used for the radio control of models?" and "What licence is required to operate a radio station for the remote control of models?"

First of all, there is no such thing, under current legislation, as a "remote control" service, and consequently no "remote control" licence as such.

The authorization for the operation of a transmitter for the purpose of remotely controlling models by radio falls within two other services - the Amateur Experimental Service, and the General Radio Service.

Licences authorizing operation in these two services also authorize the use of transmissions for the remote control of models - but (and this is important) on different frequencies and with different rules concerning power, emission, use, etc...

(For those who may be interested in the precise wording of the regulations, the number of the applicable sections of the General Radio Regulations, Part II, are shown in brackets in the following discussion.)

Amateur Experimental Service

Amateur Experimental stations may, amongst other things, be used for the remote control of models. (52(1)). The holder of an Amateur Experimental station licence may operate a remote control transmitter on any frequency in the Amateur bands above 53 MHz. (45(4)), and,

additionally, a Radio Inspector may authorize operation in the Industrial, Scientific and Medical (ISM) bands of:
40.66 - 40.70 MHz
890.00 - 940.00 MHz
2450.00 - 2500.00 MHz

(45(3))

Power and emission parameters are those authorized for the Amateur Experimental Service.

General Radio Service

The authorization provided by a General Radio Service station licence is considerably more restrictive. The holder of such a licence may operate a remote control transmitter only on the following discrete frequencies:

26.995 MHz
27.045 MHz
27.095 MHz
27.145 MHz
27.195 MHz

(77A(2)(a)(i))

and, for the control of model aircraft only on

72.08 MHz
72.24MHz
72.40 MHz
72.96 MHz

(77A(2)(a)(ii))

Types of emission are restricted to amplitude tone modulated (A2) and on-off keying of an unmodulated carrier (A1). (77A(2)(b))

The power of the transmitter is restricted to a d.c. input to the anode or collector of the R.F. output circuit of 5 watts maximum on the 26-27 MHz frequencies (77A(2)(c)(i)) and to 1 watt maximum on frequencies in the 72 MHz band. (77A(2)(C)(ii)).



A PUBLICATION FOR THE RADIO AMATEUR ON THE VHF, UHF AND MICROWAVE BANDS

OTTO H. MEGINBIR, VE6OH
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P.P.

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MODEL 22K - digital dial kit	162.95
22W - digital dial wired	205.00
model 22 is for all transmitters, receivers, and transceivers with a VFO range of 5-5.5 mhz.	
22C - Collins S-line	
22D - Drake T-4, R-4	
22S - Swan	

Write for Kit Price List

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MODEL 10AK - keyer kit	32.95
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10AWA - keyer wired with sidetone	54.45
200-3K- sidetone kit	9.95
200-3W- sidetone wired	12.95
MODEL 11AK - paddle kit	14.00
11AW - paddle wired	17.95

MODEL 40K - C W Transceiver, VFO 80/40 meters	154.95
40W - C W Transceiver, wired	194.95
MODEL 50K - C W Transmitter, 80/40 kit	48.45
50W - C W Transmitter, wired	59.95
200-21K keyer fit for model 50	21.95
MODEL 60K - speech processor	32.95
60W - speech processor, wired	40.50
MODEL 62K - Pwr/Swr monimeter kit	67.95
62W - monimeter wired	79.95
200-19K P.C. board kit with meter	42.95
200-20K RF Pick-up kit	27.50

canadian capsule comment

DOC NEWS

PROPOSALS FOR REGULATION AMENDMENTS

The Department has given notice of two proposed changes to the Radio Regulations, Part II, which are reproduced as they appeared in a recent Canada Gazette. Comments may be made by any interested party to: The Director, Operations Branch, Telecommunication Regulatory Service, Department of Communications, Berger Building, 100 Metcalfe Street, Ottawa, Ontario K1A 0C8, Attention: DOS/P, and all comments must cite "The Canada Gazette Part I, August 17, 1974 and the date of the notice, August 8, 1974". It would be appreciated if those forwarding comments direct to DOC could furnish the Federation with a copy.

The date for closing was set for October 17, but the Federation has asked for an extension to December 15. If an extension is granted before press time it will appear as a STOP PRESS item elsewhere in this issue.

The proposal for GRS (CB) regulation in effect would mean that the GRS would become a hobby band with skip communications and 6 db gain antennas being permitted. It would, in effect, legalize part of the blatant illegal operations being carried on in the GRS.

The intent of the second proposal is almost lost in the convoluted wording but it appears to legalize the possession of certain receiver equipments which were being operated without licences, which were required for those capable of receiving over 138 MHz. It appears that it would have little effect on the Amateur fraternity except to let you operate those AM/FM "Public Service" Band/Weather Band rice box equipment; and two metre tuneable monitors without getting a licence for them. Again it looks like legalizing something which was already being done by hundreds of thousands of Canadians who bought these \$25.99 Hong Kong jobs and no licence. Not to worry--the real intent of the original prohibition was to nail tow-truck racketeers and criminal use of fixed frequency monitors equipped with police frequencies.

One problem with these notices is that the proposed wordings of the amendments do not appear. It is hoped that further notice of the actual words will be in the Canada Gazette before they are made into law.

DIRECTOR APPOINTED

The Deputy Minister of Communications, M.F. Yalden, has announced the appointment, by the Public Service Commission of Canada, of John S. Davidson as Director of Information Services for the Department.

Mr. Davidson, 32 received a Bachelor's of Arts degree from Bishop's University in Lennoxville, Quebec, in 1963 and a Bachelor's of Journalism degree from Carleton University in 1967.

He began his career as a journalist, then joined the federal Public Service in 1968 as an information officer for the Public Service Commission. In 1972 he was appointed Assistant Director of the Department of Communications' Information Services Branch.

In his new position, Mr. Davidson is responsible for the development and implementation of the information and public relations programs of the Department of Communications.

VE8 NEWS

VE5RI (Ron) is visiting his son VE8AK at Watson Lake, Yukon.

VE6AWI (Lorne) is now VE8AK

VE8AW (Larry) Now operating from Coppermine, NWT.

VE8CD (Larry) and XYL, VE8FD (Julie) are now /VE6 at Calgary. Will not be back to VE8.

VE7AZ is back signing /VE8 from Contwoyto Lake. Even had the opportunity to swap obscenities on 75m with him! What band next, Shorty?!!

VE8AM now signing from Whitehorse.

SP9PT/VE8 operating throughout yukon. This is a Polish Mountain Climbing Expedition. Plan to scale Mt. McKinnley, Alaska. QSL via Home QTH.

VE8CV participated as "Spotter" in C130 Hercules, Armed Forces Air Rescue Operation. Downed chopper with pilot and passenger located on fourth day (25 August 74). Good to report this was successful and no casualties.

VE8RA (Karl) Back at Contwoyto Lake after signing VP5KG for 3 weeks. Approx. 1K-QSO's with more than 100 Countries. Karl currently working on a pair of bob-tails for 75m. Will be QSY to Lions Gate Hospital, Vancouver, 12 November for operation--Good Luck OM.

VE8RE (Bob) has a new home rolled 3 element Yagi on 20 and will be back on 75 this winter.

VE8AS (Grant) looking for good, used 2K Linear Amp...Any 'alp?

VE8CV sporting a two-element phased array on 75m (Horizontal Polarization). Very good results to date. Will be QRT/QSY VE8-Land this Oct/Nov.

VE8AC (Pierre) working on E.M.O. for Yukon. Plenty of support from Western Sector of VE8-Land.

VE8BL on Holidays (VE3-Land?)

VE8BA on holidays with family in Guelph. (Ye-Gods--Close to my old stompin' ground).

VE8MTF new club at Sachs Harbour (73 degrees N 125 degrees W).

VE8 MTJ new club at Coppermine.

WA9BZY heard signing /VE8 from Scott Lake.

VE3FXZ was signing /VE8 from Yukon this summer.

OX3CO (Chris) checking 3782 SSB with VE8's quite regularly. Should have OX3EA with us also.

Bulletin: Regret to report that the SP9PT/VE8 expedition was caught in an avalanche. 2 dead - SP9PT/VE8 and 3 others in expedition evacuated by RCMP and Parks crew. AP9PT/VE8 now 10 miles north of Haines Junction, Yukon - departing shortly.

CARTG NEWS

MODEL 28 EQUIPMENT RELEASE

RTTY NEWS

As most readers are aware, Bell Telephone in Ontario and Quebec has released various models of teletype equipment to Licenced Amateurs during the past 13 years. To date most of this equipment has been of the 14, 15 and 19 type, with a small amount of 28, 33 and 35 equipment being released during the past 2 or 3 years.

Members of the Canadian Amateur Radio Teletype Group (CARTG) have been kept informed about this programme and of the 2 years of negotiations by VE2MR leading to the establishment of procedures permitting release of this equipment. The negotiations were difficult and sometimes frustrating, but the success of the project has stimulated an interest in this phase of Amateur Radio that otherwise would not likely have taken place. It is estimated that about 75 tons of eqpt. have been distributed to date. Amateurs who have assisted in this project were VE2TT (now VE3RP), VE2AXD (now VE3PK) and VE3BAD.

To date, the only Model 28 gear that has been released required that certain pieces of equipment had to be purchased from USA Dealers to make the machines



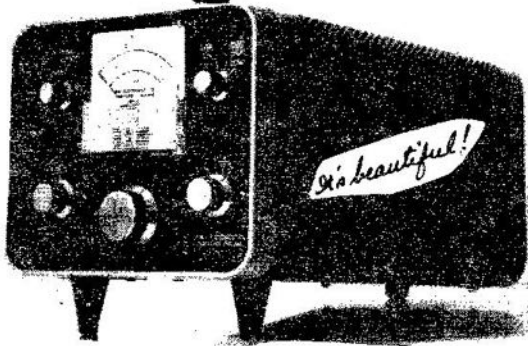
hallicrafters

the FPM-300
"Go anywhere station"

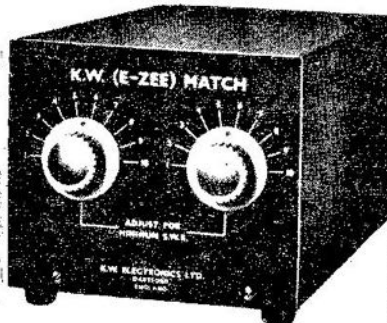


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KW-107

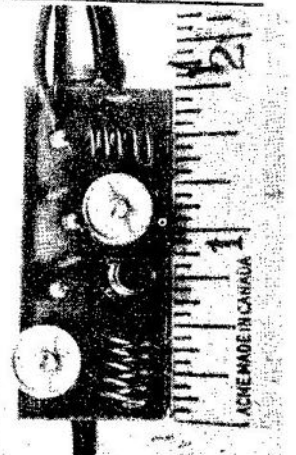


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CANADA

V7P - 2L6

complete, which meant that Canadian Amateurs paid more than the Nominal fee asked by Bell for the equipment. At the same time however, the Amateurs were free to resell these Non Bell Units at their pleasure.

There is now indication that a substantial quantity of Model 28 equipment will be released and some equipment has already been received. For that reason, in order to concentrate all my efforts on distribution of this equipment, VE3BAD, Joe has agreed to handle future requests and distribution of Model 14, 15, and 19 equipment. Joe as you all know is now also located in Ottawa.

The Model 28 equipment immediately available and totally ex Bell consists of 25 Model 28 Receive Only Console Models comprised of the following units: Console Model Floor Cabinet, Electrical Service Unit, LMU 3 Motor, MarkIII (newer style) typing Unit, RO Base.

These machines will be easily convertible to KSR units at a later date when such keyboards are available by the replacement of RO BASES by the KSR Bases. Total cost of the RO Machines is \$64.00, which includes a type box purchased in U.S.A. at \$10.00. It is expected that the KSR Bases will be available only to licenced Amateur Radio Stations.

Procedure for obtaining one of these units is as follows: C.B. Taylor, Trans-Canada Telephone System, 8th Floor, 1 Nicholas Street, Ottawa, Ontario, K1G3J4.

Do not send any money at this time, but include your Call letters, address, day and evening telephone numbers.

When a machine is ready, you will be notified, and waivers will be sent for your signature. Upon completing, and returning the waivers, you may pick up your machine (by pre-arranging with me) at The Bell Telephone Co., of Canada Office, 200 First Avenue, Ottawa. No machines will be shipped to locations in Ontario or Quebec. Amateurs outside Ontario and Quebec may make their own arrangements with a long distance carrier to have the machines crated and shipped.

LITTLE-KNOWN HEROS OF AMATEUR RADIO

A very real and vital facet of amateur radio in Canada is the 'TOPSTAR' net which keeps servicemen and civilians in the far north in touch with their families. Few of these outposts in our Arctic have commercial telephone facilities and the phone patches provided by the TOPSTAR operators are a link between these men and the wives and children or sweethearts from which they are separated for many months at a time.

The southern end of the link has been handled for many years by a number of volunteer operators in Ottawa, but with the relocation of the servicemens' home base from Ottawa to Kingston the traffic load is changing to the latter city.

Kingston is served by VE3RCS at the Signals Base ('Vimy Barracks' to those old enough to remember the Royal Canadian Corps of Signals). In Ottawa the net has been manned by a rotating crew including VE3DNH, Ron Haines, who has finished another four-month stint at the Alert end; VE3BDO, Doc Haycock (an old Northern hand himself); VE3PY, Vern McCourt, VE3CT, Charlie Grove; VE3AUM, Ron Belleville (who is also familiar with the tundra and ice country) and VE3ANT, Al Stinson.

The TOPSTAR net is on every night except Sunday and can be found on 14.165 Mhz at 2200 to 2300 Zulu time. Its success is due to the devoted interest of these operators and the others who from time to time participate at the Ottawa end.

At the other end of the link, TOPSTAR takes in regular callers from Alert, Eureka, Isaacson Island and others. There is an intercom net between these posts stretching from Inuvik to Frobisher. The 'ARCTIC' net operates 141.125 Mhz, Wednesdays at 2000 hrs. Zulu time. Control is VE8AE.

ARRL NEWS

QST

Next January 1, ARRL Dues will rise to \$10.00 in Canada but they will accept renewals at the old rate for any number of years up to January 1, that rate, by the way is \$8.50.

Phone DXCC holders, fear not--the activity and the certificate remain, per Board order.

Frequency Conference

(Continued from Page 1)

where some ship on the high seas was struck with Rocky Mountain Spotted Fever and I was their only salvation...hell, if I did pick up a signal like that I still haven't been able to find out yet if I notify the Missauga Police, the Toronto Harbor Police, or Bill Davis and his Big Blue Machine or just ask the guy for his QSL manager and hope the ARRL consider his QTH as a new country.

This is not to say that we cannot be of assistance to the public and ourselves in times of need. It's just that with the organization that we have right now, anybody calling Mayday on the ham bands would be better off going to the nearest pay phone and calling Dial-A-Prayer. Do you have the equipment and knowhow to handle an emergency??? The closest thing I ever did to help the public was handle some traffic for a friend of a VE8 who told me to phone his mother and tell her that he needed more shirts and clean socks.

By the same token, I am not pretending that I am the harbinger of doom and forecasting the demise of amateur radio. What I am saying is that if you have as much love and money tied up in your hobby as I have then perhaps you should sit down and take a hard look at what is going on and try to find out more about it and DO something. The electronics industry can get along without us. We are no longer the pioneers inventing new schematics and circuits to make it possible to get across the ocean. The vast majority of us can't even comprehend 50 per cent of the circuitry that appears in the electronic magazines. The DOC is still quizzing us on AM and tube circuits--hardly a mention of transistors and they are now obsolete--IC's are the big thing. Even with the vast amount of knowledge that we learned in order to obtain a ticket seems to be of very little use because when you hear some of the lousy signals on the air chirping, splattering, clipping, etc., it seems we can't even operate or fix our own rigs."

In a more restrained vein but sounding the same alarm is an article by Jim Whittaker in the Montreal ARC "Marcogram" giving a summary of a talk by Dave Weiner, VE2DCW. He notes that "recommendations for a Canadian policy on telecommunications (which includes spectrum allocations recommendations) have been made by the Telecommission established in late 1969 by the Minister of Communications, the mandate for which was to objectively study the present state and future prospect of telecommunications in Canada.

"The Telecommission defines its concern over telecommunications rather broadly: "as an instrument essential to the national defence, to the provision of safety services, and to the handling of emergencies..(and)..to see that those services are responsive to public demand over as wide a range as possible, and equally responsible to social and technological change".

"It is self-evident that the goals of the Canadian Amateur Experimental Service must coincide with the overall goal of telecommunications policy. It has that potential. But to what degree are we adhering to that goal?

".....How do we ensure continued usage of the spectrum? and how do we justify that use?

".....The trend to be observed is one of increasing international regulation of the frequencies in view of increasing saturation.

"....Since 1959 the need for a re-assessment of frequency allocations had become acute, given the development of satellite communication multiplex techniques and microwave expansion in these years, together with the development of new nations. The priorities have now changed internationally, in view of the commercial and military importance of the radio spectrum to these new nations. Many of these new countries are not so quick to recognise any need for amateur radio, considering the congestion of that valuable but limited resource...the frequency spectrum.

"It must be further realized that each nation has one vote at these conferences, and while hams may expect to rely on the support of some of what are traditionally called "Major powers", i.e. the Soviet Union or the United States, who have traditionally promoted amateur radio, it might be argued that their opinions will be of little concern to the so-called "under-dogs", who seek economic and social development in their own countries.

"These emerging nations are not yet sufficiently

advanced in their technology to take part in the upwards swing towards the GHz range for communications among themselves and must perforce continue with the use of the HF bands."

So, there are two interesting views of the perils awaiting the Amateur bands in 1979. However, there is one more viewpoint, expressed by an Amateur who was a member of the Canadian delegation to the 1959 ITU conference and who was engaged in spectrum allocation work, both nationally and internationally, for many years. His observation is that one strong ally which the Amateurs have in retention of their bands is the military in the more powerful nations. These bands form an instant reserve for military uses, a fact recognized by both big world powers and the other developed nations. Looking back at the Canadian Telecommission's quote where radio is recognized as "an instrument essential to the national defence" it would seem to lend credence to this view.

Let's hope so, because the Amateur cause will need all the allies it can muster for the 1979 conference.



Maritime Amateur Radio Convention

The four-day Convention, held at Fredericton on the UNB campus, over the Labour Day weekend, attracted some 300 Amateurs from the Maritimes, VE2, VE3 and neighboring W1 areas. The convention committee, headed by Al Thurber, VE1AKT and his XYL, Pat, VE1AJT, did a magnificent job, with the weather man co-operating to the fullest.

Among the crowd were a number of old timers, VE1RF, VE1GJ and VE1CP. The latter, Jack Holman, took home the award for the oldest licensed Amateur present at the convention. Walt Wooding, now VE3CLJ, did a very fine job as M.C. of the Sunday night banquet held in the

magnificent men's dining hall at UNB. Walt also doubled in brass as chairman of the open forum which featured VE3CDC, Doug Burrill, vice-president of CARF; VE2MS, George Spencer, ARRL Canadian Div director and Ron Hesler, VE1SH, ARRL EC for the Maritimes. George was the winner of the draw for the FT101B transceiver but generously turned it over to the Fredericton club to be given to a deserving Amateur in the Maritimes.

Others on the program were Dr. Ted Hartz from the Canadian Research Council, Ottawa, Fred Hammond, VE3HB, Burns Getchell; VE1CL, Bob McQuay, VE1SB; Malcolm Redding, VE1IZ and Jerry Hall, K1PLP.

Objectives of the AES in Canada

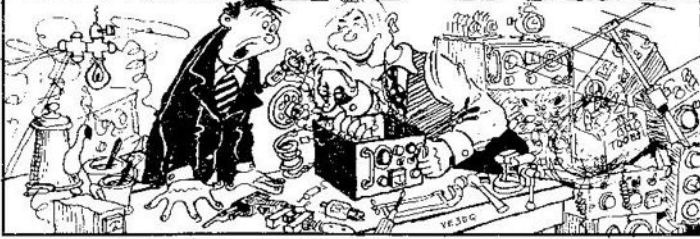
The AES is a radio service... "in which land or mobile stations are operated for self-training, intercommunications and technical investigations carried on by amateurs who are duly authorized persons in radio technique, solely with a personal aim and with ut pecuniary interest,"...the Radio Act, General Radio Regulations Part II.

Living as we do in the shadow of a giant neighbor whose written and spoken culture overwhelms us, we lose sight of the differences in our legal, political and legislative spheres. In Canada, public service is not a justification for the AES. That is not to say that it is not a desirable feature of amateur radio when it can be done legally, but let's not get confused by the material in U.S.A. amateur publications which emphasizes the need for public service

by their ARS. Their ARS is justified on different grounds than ours. Public service is one of its official objectives and the availability of skilled communicators in a national emergency is another. This U.S.A. official viewpoint is reflected in the FCC 'incentive' licensing system and in the very definite FCC statements in its written decision on the 75 metre frequency sub-band allotments made November last year in which the intent to motivate the lower class of licensees to improve their grade is very evident.

The FCC made it plain that the 'carrot-and-stick' approach was the official US policy by not making more room for the low-grade licensees but rather expanding the frequency allotment for those who get higher grade licensees, at the former's expense (and ours, too).

TECHNICAL TALKS



Matching mobile whips

VE3CRL

Vertical one-quarter wave antennae have a theoretical impedance one-half that of a simple dipole, or 35 ohms. Actually, due to the ground being an imperfect reflecting plane, and the influence of adjacent objects, their feed point impedance is usually much less than this theoretical value. In the case of centre loaded 80 metre mobile whips, the feed point impedance may well be of the order of 10 to 15 ohms.

This presents problems in matching to transceivers designed to feed into loads falling in the range of 50 to 75 ohms. Many compromises have been used to overcome the inherent mismatch, such as series coils, tapped base coils, and parallel coaxial feed lines.

What is required is low loss impedance transformation using a device that is not inherently a single frequency device, nor requires retuning when changing frequency or band. Impedances can be as readily changed by a transformer as can voltages. Ferrite toroid cores as used in the familiar toroidal baluns have sufficiently low losses and broad band characteristics to be useful over all the Amateur HF bands. As baluns they can be wound and connected to give either a 1 to 1 or a 1 to 4 impedance match as well as matching coax to a balanced centre fed antennae. They can also be connected with a common primary and secondary windings, ie, not involving the high impedance winding centre tap as a grounding point, to give a simple impedance match between coax and unbalanced antenna.

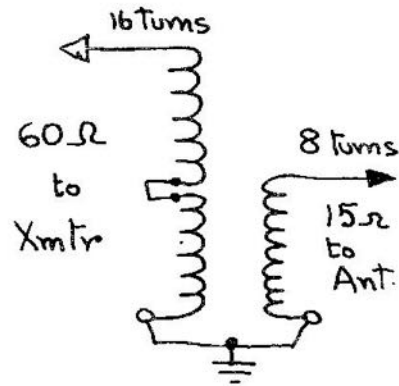
One thing to remember is that while voltage is transformed in proportion to the turns ratio, impedances are in proportion to the square of the turns ratio. In other words, if an antenna with an impedance of 15 ohms is fed from a transformer with 8 turns in the secondary facing the antenna, and 16 turns in the primary, the impedance facing the feed line would be four times the antenna, or 60 ohms.

The toroidal transformer can be an autotransformer if desired, or can have separate primary and secondary. It is suggested that the turns be wound bifilar or trifilar as far as a balun.

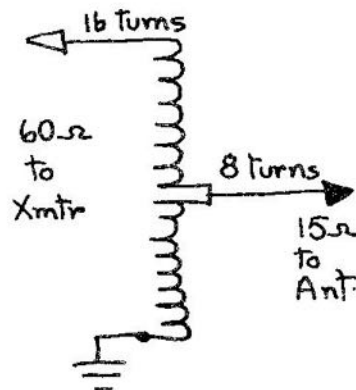
A small toroidal transformer, of about 8 to 10 bifilar or trifilar turns, mounted in a small box at the base of the mobile whip, can be an efficient impedance matching device.

Any Amateur thinking of experimenting with this approach, should read some of the many articles on toroids as baluns and transformers.

References: Mobile Antennas—Simple Steps to Peak Performance—Webster Band Spanner:RSGB Handbook, Fourth Edition,—Page 13.30: 73 Magazine, June 1967, Toroid Tanks for Linear—Page 6: QST, August 1964, Broad-Band Balun Transformers—Page 33: Proceedings, I.R.E., Some Broadband Transformers—August 1959, Page 1337.



3 Trifilar Windings
(8 Turns each)



Auto Transformer
(2 Bifilar windings, 8 turns each).

SENIOR CITIZENS AMATEUR RADIO CLUB

About a year ago a group of Senior Citizens with amateur license applied for 'New Horizon's' grant. The purposes was to give opportunities to Seniors to listen to short wave. To give help to Seniors who might want to obtain their amateur radio license. To provide means of communicating with others and hoping to increase activity with groups of Seniors.

Upon receiving the grant officers were elected - George McNeill, VE7ON, Chairman - Dave Van Ness, VE7AP, Treasurer - Don Capon, VE7AMW, Secretary - Ron Hogson, VE7BY Vice-chairman - Mort Mortenson, VE7KM, Technical - Sam Hart, VE7BFW, Percy Hetherington, VE7AID, Steve Pocock, VE7Of, Jack Arnold, VE7CAM, Fred Shaw, VE7SR members.

Call sign: VE7SCR for Senior Citizens Club. Constitution formed registered under the Society Act of British Columbia.

Location: after much hunting the 'Ham Shack' is located on the 18th floor of a new senior citizen complex at 3775 McGill Street, North Burnaby.

Statistics: 18 stories on the highest part of Vancouver heights, antenna is located on top of the elevator building. This is a sixty foot tower, on top is a six element Mosley and 5/8 antenna for two meters. Yaesu FT-510.

Visitors are welcomed - but please contact one of the above officers at their home, to be sure that someone is there to welcome you.

CANADIAN QSL CARDS ARE AVAILABLE FROM CARF

This service is open to all Amateurs
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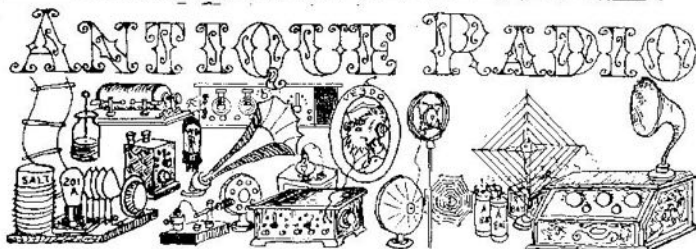
Good variety of distinctly Canadian designs and color schemes.

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For package of samples, send 25 cents in stamps to:
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AUTHORITY TO OPERATE IN THE USA

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. K7L 4W2.



SOCIETY OF WIRELESS PIONEERS BULLETIN

IT ALWAYS PAYS TO HAVE COMMUNICATIONS

It is nice to have luck on your side during a shipwreck. In 1886 the SS ANCON struck a rock in GLACIER BAY, Alaska. But she did not sink as her cargo consisted of empty salmon barrels.

The diminutive SS RORA/WAH, which leaked all over, except her hull, broke a steampipe in Nov. 1905. She drifted for 63 days, sometimes south of the Columbia River, and other times near Kodiak. After given up for lost, and the insurance company ready to pay up, she came proudly sailing up the Straits under home-made sails. What saved them was plenty of food in the cargo and much rainwater. This started the Alaska Steamship Companies installing wireless (radio to you new-comers)long before the 1912 Law.

WIRELESS TOWER AT HATTERAS

Karl Baarslag reports the 'Islanders' living around this famous tower, which played an important part in the early experiments in wireless (Resenden from 1900-1903), plan to reconstruct the shack which was once a part of the wireless telegraph station as part of the Bicentennial project of the community. The fifty foot tower has been a

EXTRACTS FROM AJ'S LOG

A story from the West Coast concerns a Japanese ship heading for California. Old KOK of MacKay Radio, famous for his 60 cycle sync spark that could be heard all over the Pacific, called him with a question in English—something that was apparently not covered by an International 'Q' signal. There was a long pause while the Japanese operator consulted his English-Japanese dictionary. Finally he answered and said—"Please send more slowly—this virgin operator". High-Q

BANNED COUNTRIES LIST

Iraq, Khmer Republic**, Libya, Pakistan, Somalia, Turkey, Viet-Nam*, Peoples Democratic Republic of Yemen.

* - Stations XV5AA, XV5AB, and XV5AC have been authorized to exchange communications with Amateurs of other countries.

** - Station XU1AA has been authorized to exchange communications with Amateurs of other countries.

THIRD PARTY TRAFFIC AGREEMENTS

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

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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.



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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Transceive with R-4B or T-4XB VFO or use separately.

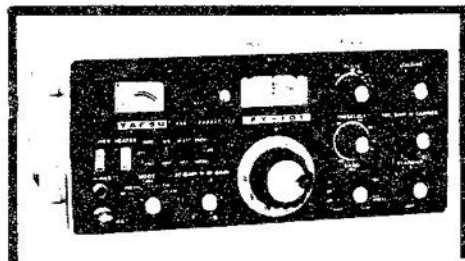
DRAKE SIDEBAND TRANSCEIVERS

TR-4C & TR-6

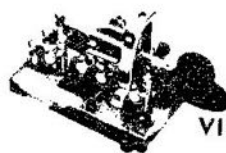
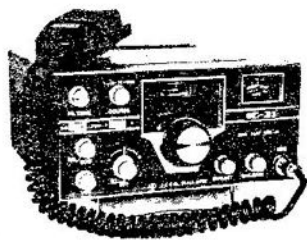
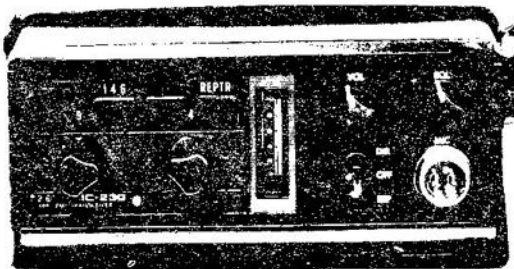
BOTH have Linear VFO, 1 kHz acc, 300W PEP-SSB, Semi Break-in CW with Sidetone, VOX or PTT, Adjustable Net, Plate and AGC Mtrs, built-in noise blanker.

TR-4 covers 10-80 meters; USB/LSB, CW, AM; TR-6 tunes 6M plus MARS with 9 xtals (2 furn), USB-CW-AM.

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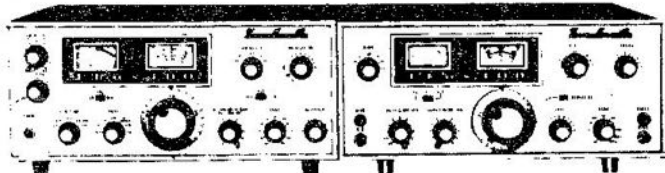
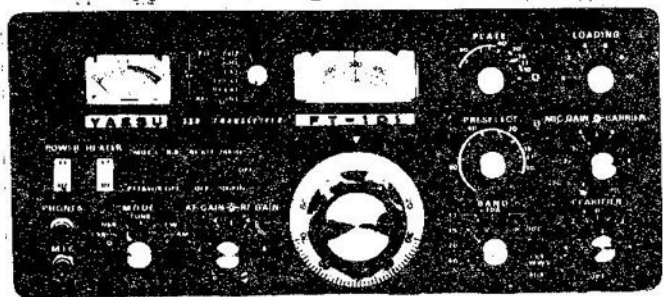
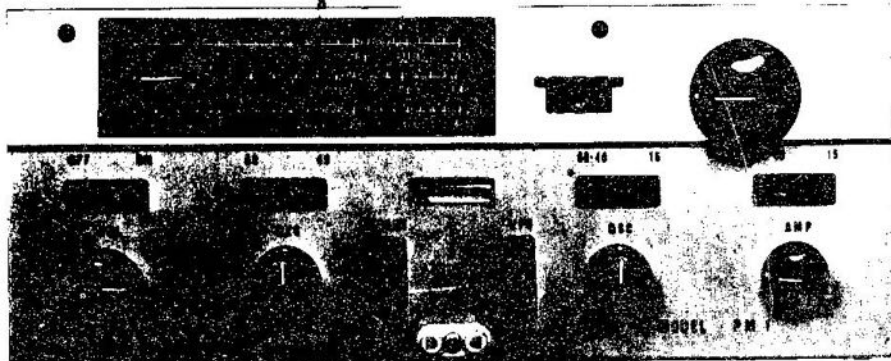


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