SEPT 76

THE GROUNDWAVE

The Official Bulletin of the

OTTAWA AMATEUR RADIO CLUB

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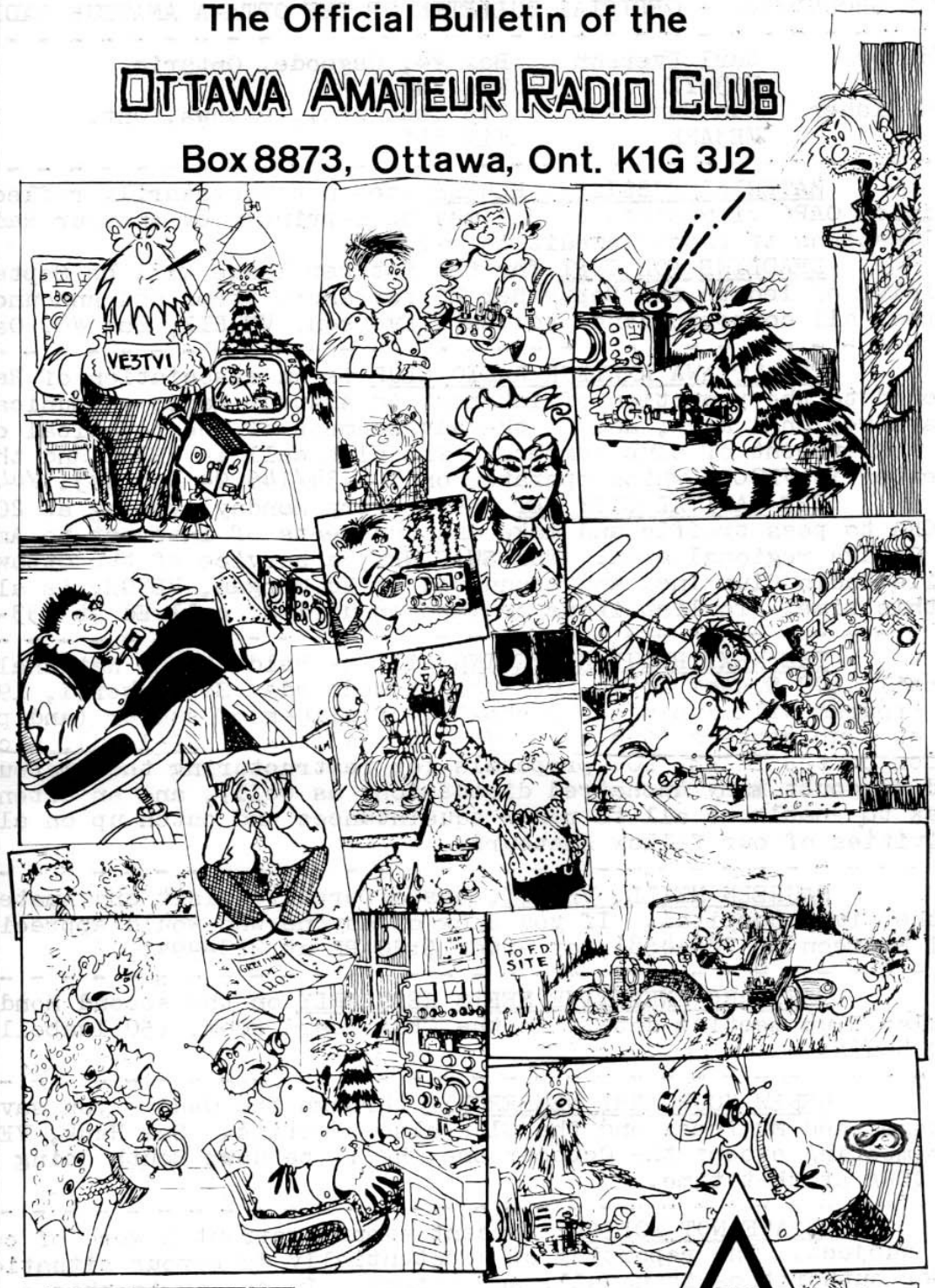

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OTTAWA AMATEUR RADIO CLUB

THE GROUNDWAVE - OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB 9/76

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DEADLINE FOR COPY for the October issue will be September 18 for articles of length and September 25 for short items and announcements. Address all correspondence to: Carl Everson, VE3BYX, Box #4, Osgoode, Ont. KØA 2WØ

THE OTTAWA AMATEUR RADIO CLUB is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communication in the Ottawa regional area, and to the advancement of the technical competence and achievement of Club members. The Club call is VE3RC and the Club repeater is VE2CRA which operates on 146.34/146.94 and 443.3/448.3 MHz.

THE CAPITAL CITY NET meets every Monday evening at 2000 hours on VE2CRA to pass traffic and make announcements of interest to Amateurs in the Ottawa regional area. THE SWAP NET, a service of the Ottawa Valley Mobile Radio Club Inc. and conducted by Ed Morgan, VE3GX, is also repeated at this time. To list items or make enquiries, call Ed at 733-1721.

THE NEXT REGULAR MEETING will be held at the National Research Council, 100 Sussex Drive, Ottawa, on Wednesday September 1, 1976 at 2000hrs. The program will include the showing of slides of summer (and past) activities of Club members (including VE3EVK's slides of ZL-land), a chaired discussion on the recent DOC proposals for restructuring the Amateur Service (and no doubt many unchaired discussions as well), and an extended coffee-break to enable us all to renew aquaintances and catch up on all the summer activities of our fellow Amateurs.

MAUREEN NEILL, VE3FZY, has offered to visit any Amateur confined to the Civic Hospital. If you know of anyone who would appreciate a visit, call Maureen at 725-4581, or after 5:30 PM at 233-9941.

THE OARC EXECUTIVE MEETS REGULARLY on the second Monday after the regular Club meeting date, in the CFRA Board Room, 150 Isabells St., at 2000 hours.

RENEW YOUR ARRL MEMBERSHIP through the OARC - you save time, postage, and MO fees, and the Club also benefits. See Hank, VE3BR, at any Club meeting except the October one. He'll be down South doing his duty for the QCWA at that time.

WE ARE NOT POLICE! Recent events warrant a word of caution on this subject. The reporting of a potentially dangerous situation to the proper authorities is usually sufficient. In no way is this a caution against involvement and the performance of one's civic duty. However, the pursuit of an erratic, supposedly impaired driver leaves ourselves and Amateur Radio open to severe reprimand if a more serious situation should develope from a private attempt at law enforcement. Likewise, a car bearing Amateur license plates and found to be the cause of a serious accident or fatality is a black mark against Amateur Radio as a whole as well as against the actual driver. With priviledges come responsibilities and as responsible Amateurs we must consider the effects of any action on the group as a whole as well as on ourselves.

MINUTES OF THE LAST REGULAR MEETING The regular meeting of the Ottawa Amateur Radio Club was held in the auditorium of the National Research Sussex St., on Wednesday June 2, 1976.

The meeting was called to order at 2010, in the absence of the President the Vice President chaired the meeting and welcomed visitors.

The minutes of the previous meeting were brought to the attention of the membership. It was moved by VE3ARS seconded by VE2AHN that they be adopted as printed in the GROUNDWAVE.

Field Day - Meeting will be held in the Boy Scout Headquarters, Baseline Rd., on 10th June, the site is not confirmed yet.

Gerry VE3GK introduced his successful beginners class 35 passed.

VE2DNW reported that almost all the parts for the Synthesizer project have been ordered. A letter will be sent out to all participants with the final cost and a questionnaire regarding the type of crystals needed.

The time award was won by Ray VE3CJA for the month of June.

South Wales Group of Amateur Radio operators will be operating a station during an exhibition being held in South Wales to raise funds to help to send athletes to the Olympics. The station call is GW4ENT they will be looking for contacts in Ottawa and Montreal.

Bill VE3EKA and Sandy VE3AAC gave a very interesting talk on EMI with the aid of slides. A vote was given by VE3ERA.

There will be an E.M. Clinic Saturday 12 June at C.J.O.H. from 0900 - 1200.

Meeting adjourned 2215.

Maureen Neill, VE3FZY, Secretary

INFORMATION CIRCULATING that the Canadian Amateur Radio Federation is "responsible" for the DOC proposals for Novice and Experimenter certificates are NOT true. The Federation did NOT sponsor, nor is it responsible for, these proposals. It is, however, conducting a poll utilizing reply cards in its September issue of The Canadian Amateur, the results of which will be passed to DOC. (Doug Burrill, VE3CDC, VP CARF)

(See page 8 for further information on the DOC proposals - Ed.)

SHINERAMA SEPTEMBER 10-11 1976 Once again this year the OARC will be providing communications support for the University of Ottawa student campaign for Cystic Fibrosis research. C.F. is one of the most common serious chronic disorders of Canadian infants and children. With it, certain glands do not function properly - the mucus glands secrete an abnormal thick gluey mucus, and the sweat glands produce unusually salty sweat. C.F. occurs when a child inherits two genes for the condition - one from each parent. The parents who are carriers of the disease show no sign themselves because they each have only one gene. But when the genes combine in their child, C.F. results. The chances are one in four that such a child will be a C.F. victim. With luck it will live 20 years. Apply this to the population of Ottawa, or of Canada, and you'll see why help for research is needed. Dollars will help the Canadian Cystic Fibrosis Foundation carry on its research to find a cure or control for the disorder.

About 60 colleges and universities from coast to coast in Canada are competing to raise money for C.F. by conducting a shoe-shine blitz in their respective cities. Ottawa U. is one of these and has been top-of-the-heap on many occasions - and plan to be again this year. The OARC is proud to be a part of their campaign. It all takes place Friday, Sept 10 (5:30-9:30 PM) and Saturday Sept 11 (8:30 AM - 6:00 PM). If you can help by (a) giving your time, (b) loaning equipment, (c) loaning a van or truck, contact DAVE PARKS, VE3GSA (232-6255) or LARRY BRADLEY, VE3CRX (824-3753). Repeater VE2CRA will be busier than usual at these times and other users are asked to assist also by relinquishing use of the repeater when required for Shinerama traffic.

RASO AND THE SAILING OLYMPICS by B.W. Hovey, VE3EW

Radio Amateurs Serving the Olympics started at least a year before the opening ceremonies. Al Daemen, VE2IJ, came up with a plan whereby the Montreal Amateurs would set up an Amateur station outside the Olympic site, with 2-meter facilities inside. He then visited Kingston where he met with Bill Bushnell, VE3DXY, Bert Hovey, VE3EW, and Colin Edge, VE3CPK. Arrangements were made to set up similar facilities in Kingston for the Sailing Olympics.

The idea was to have contestants and officials record messages on tape as well as the usual message form. These messages would be passed to Montreal from whence they would be sent out to Amateurs in the contestants' homeland. The tape idea failed to catch on and the number of messages sent 'home' was not nearly as large as was expected. However, the Olympic officials were loud in their praise for services rendered.

Montreal Amateurs manned CZ2O (Charlie Zebra Two Olympics) night and day. VE3KAR in Kingston was manned from 1830 to 2200 hours daily, from their position inside the Olympic Village.

Communications were also provided for the Olympic Flame ceremony from Ottawa to Montreal and on to Kingston. The chore of escorting the Flame was given to Lloyd Guinette, VE2KQ. The Ottawa contact was Ron Belleville, VE3AUM. The longer run, into Kingston, saw both American and Canadian repeaters in use on two meters.

The Canton, N.Y. repeater was used as the motorcade moved out of Montreal. They were soon picked up by Ralph Clifford, VE3VG, using a beam pointed at Canton. Ralph was assisted by VE3HWX. As the Flame came within range of Kingston, communications came by Buster Doubleday, VE3NF, via the Kingston repeater, VE3KER. He was assisted by VE3NB. These two base stations were able to keep the motorcade in constant touch with Olympic Headquarters at both ends of the run. Bert Hovey, VE3EW, provided the mobile unit in front of City Hall where the huge crowd had gathered. The MC kept them posted on the progress of the Flame. Gary Penwarden, VE3HWS, monitored the Dexter, N.Y. repeater as back-up.

A female voice broke in on the repeater frequency at one point to say, "The Flame will never make it into Kingston. Another hundred yards and BANG!" Whether her distorted mind was supposed to be joking or for real will never be known. Police and officials were alerted, but fortunately, no further action was needed.

On another occasion, when senior officials were visiting the sailing events, it was Amateur Radio that provided the link between aircraft, boat, and home base.

The Ottawa Club gave the Montreal Amateurs a much needed breal. They moved in and took over the operation of CZ2O for one whole weekend.

Colin Edge, VE3CPK, and Art Blick, VE3AHU, kept an eye on the Kingston repeater, and duty operators included VE3NF, VE3DMR, VE3DXY, VE3HNU, VE3FMF, VE3HOK, VE3DWA and VE3EW.

Operators who took part in the Flame ceremonies received an Olympic scroll bearing their names and call letters. Those who supplied the phone patch facilities received a 6x4 foot silk Olympics sailing flag.

A host of operators took part in the Olympic activities in addition to those whose names and call letters appear above. They can rest assured that their time and talent was not wasted. Amateur Radio gained valuable experience and our public relations received the greatest boost that Canadian Amateurs have seen in many years.

(CARF News Service via Doug, VE3CDC)

IT'S GETTING AROUND TO THAT TIME OF YEAR when members begin showing up at meetings to make sure that their names are not placed on any nomination lists for the coming year. (ARRL Radio Club News)

AN OPEN LETTER TO THE DEPARTMENT OF COMMUNICATIONS

Dear Sir, This is in response to your request for comments concerning your proposals for two new classes of Amateur Radio Operator's Certificates....

...I am NOT in agreement with either of your proposals.

I have yet to be convinced that the elimination of the Morse code tests are necessary to encourage the desirable segment of experimenters and would-be communicators to the Amateur ranks. If...have the technical knowledge...surely he is capable of mastering the Morse code....

...in the case of a "communicator"...even here, it does not appear to deter a determined student from obtaining the required standards....

Should, however, it be deemed necessary to continue with your general policy to introduce the new classes of certificates, changes are needed prior to implementation. As your proposal is worded, it would be possible for an "experimenter" to receive full operating priviledges on all frequencies without knowledge of the Morse code. Such provisions would not only be grossly unfair to those who had made the effort to become fully qualified, but could prove, to say the least, embarrassing, if not downright dangerous, if an "operator", especially on the lower frequencies, interfered with a distress incident, or failed to recognize one because of lack of knowledge of the Morse code.

The power limitations...are not practical. ... How could the output be measured without a physical inspection of the station? It is not controllable through the Type Approval program since the equipment could be home built. Conversely, a large proportion of commercially built Amateur type transmitters, now available, are rated in the 150-200 watt range.

...I am NOT in favour of a complicated structure of certificates ...the proven two-step system...is not only practical but sufficient...

...taking a deviation from standards of the International Telecommunication Union is considered...poor practice and should not be employed. ...a reservation on Article 41 of the Convention is not concurred in.

Yours truly, A.P. Stark, VE3ZS

(Article 41 states, in part, that any person operating the apparatus of an Amateur station shall have proved that he is able to send correctly by hand, and to receive correctly by ear, tests in the Morse code signals. This is an international regulation adhered to by most countries. - Ed.) -

THE READING OF THE GROUNDWAVE over the air (75 metres) has been discontinued for the summer but Bud, VE3UD, plans to resume his project with this issue. This project was undertaken primarily for the benefit of the several blind Amateurs in the Ottawa area and takes place at 9:00 PM local time at or near 3770 kHz on the Sunday evening preceeding the regular OARC meeting. If THE GROUNDWAVE has not been delivered by this time, then the first evening following its delivery will be chosen. 'Check-ins' have been very gratifying and Bud is to be commended for his efforts.

THE OARC PICNIC was a huge success! Over 60 persons gathered in Vincent Massey Park on Sunday August 15 to participate in games, sports and picnicing. With Larry overseeing the hot-dog stand, Penny dishing out the soft drinks and 'Big Jim' dispensing monstrous slices of watermelon we were able to stuff ourselves and still get away before the rains came. In the games department, everyone was a winner (what more could one ask?), however no bonafide 'home-brew' kite appeared so that event had to be cancelled. Perhaps we should try hot-air balloons next time! The committee is to be congratulated on the success of the day after being cancelled the week previous due to (what else?) rain and for their fervent prayers which I am sure helped to hold it off this time until lunch was over.

ONE OF THE GREATEST LABOURSAVING DEVICES OF TODAY-----is TOMORROW!

ESPERANTO FOR AMATEUR RADIO by Bruce Spanton, VE3BRS

(If you have not done so, it would be advisable to first read, or even review, the introductory lesson in Esperanto, which appeared in the July-August issue of THE GROUNDWAVE, before you proceed with this one.)

Some of the amateur vocabulary or language, in English, tends to sound a bit derogatory and can be correctly understood and appreciated, perhaps, only by an anglophone. An international language needs to be more diplomatic. So, in Esperanto, we use more precise and polite terms. Therefore, "radio shack" is RADIODOMETO (small radio house) or RADIOĈAMBRO (radio room). An "old man" is KOLEGO or AMIKO (colleague, or friend). The "XYL" is MIA EDZINO (my wife) and the "YL" would be MIA FILINO (my daughter) or MIA AMIKINO (my girl friend). A "handle" is RADIONOMO and "73" is BONSALUTOJN or BONDEZIROJN (good greetings or good wishes). If you must put it in the superlative degree you could say MIAJN PLEJ BONAJN SALUTOJN!

The ease of learning Esperanto words for a Canadian Radio Amateur will be apparent from the following which needs no translation for you to readily understand:- MIKROFONO, ANTENO, VALVO, BATERIO, KATODO, ANODO, SIGNALRAPORTO, VOLTMETRO, AMPERMETRO, SELEKTIVA and FREKVENCO.

Probably little or no translation is needed for the following:- REKTA KURENTO, ALTERNA KURENTO (direct and alternating current), KAPACITO (capacitor), PROPAGADO (propagation), KAMPOTAGO (field day), UNIVERSALA TEMPO (U.T.)(GMT), FALDITA DIPOLO (folded dipole), RADIAJ KONDIĈOJ (radio conditions), PORTEBLA STACIO, MOVEBLA STACIO (portable, mobile station), STACILISTA LIBRO (station list book), KAPAŬDILOJ (headphones), RENDEVUO (schedule), SENDI, RICEVI (to send, to receive), SENDILO, RICEVILO (transmitter, receiver), KONEKTI (to connect), VOKI (to call), VOKSIGNO (call sign), IDENTSIGNO (identification signal), DIPLOMO or ATESTO (certificate), EKONDUKI (to lead in or introduce), ĜIS REVIDO (so long, until we meet, see again), ĜIS REAUDO (so long, until we meet, hear, again), RELEGI (to re-read).

Study books for learning Esperanto may be available at the next Club meeting. Also, you may have the opportunity at that time to indicate if you would like to attend a class or study group in Esperanto. This could be oriented, to some extent, toward an Amateur's needs.

ĜIS RELEGO!

WHEN YOU TELL SOMEONE that you are a Ham, does he snicker and say something about TVI? What image do you project as an Amateur? A reason to be concerned about publicity is the old adage, 'The squeaky wheel gets the grease'. Right now the GRS lobby is a very squeaky wheel and the talk is that there will be lots of grease coming their way in the form of relaxed regulations. How does a 12-year-old kid ever find out that there is more to radio than putting 'ears' on a truck and cruising around looking for 'Smokey Bears' and 'County Mounties'? Natural disasters are magnets for newsmen and special events can be an excellent source of publicity and on a local level, publicity can be free. If we don't let people know we exist, we will be regulated out of existence. How about keeping interesting information about members on file so that whenever something newsworthy happens in your club, there will be background material handy to tack on to the story about those Amateurs involved. And a simple idea we can all try comes from W6NAZ: Wear a lapel pin with your call on it at all times. And then when people ask what the heck that nonsense is, be ready to start talking. (ARRL Radio Club News)

PREFIXES WORKED ON SIX from the Ottawa area during the summer include: VE2, VE3, VE4, WA4, WB4, K4, WA5, W8, WA8. WB8, W9, WA9, K9 & WAØ. One of these was an 18-wheeler highballing it through Florida and having a ball working legal skip. (PS. Also worked: WBØ, WB5) (VE3BYX)

THE DECIBEL is being used more and more as a measurement term and it is increasingly important that Radio Amateurs become aquainted with it and know how to use it properly. Catalogues and technical literature make use of the decibel (abbr. dB) to indicate the performance of amplifiers, antennas and filter networks. Decibels have been used for sometime in giving signal strength reports and its use provides a convenient shorthand notation for power ratios and simplifies overall system analysis. The most important thing to remember is that a dB is NOT an absolute unit. There is no such thing as one dB in the sense that we think of one watt, one ohm or one mile. A dB is a RELATIVE unit, it must be related, or referenced, to some basic value and can be thought of as a unit of DIFFERENCE in levels. The decibel is defined by the equation: $dB = 10 \log_{10}(P_1/P_2)$ where P1 and P2 are the power levels being compared (or where P2 is the reference level). The log function is employed because the units were first used in audio work (by Alexander Graham Bell, after whom it was named) and the response of the human ear to changes in power is actually logarithmic. It was then subsequently found to be a convenient means to express changes in power or energy levels at RF as well as audio frequencies. To calculate dB, we can use the equation of definition above, or we can refer to a Decibel table (Table I). The use of the table is best explained with a few examples. Let's assume we have a gain of 3 dB. Referring to Table I we see that the corresponding power gain is 1.99. That is, the power output is 1.99, or approximately 2, times the power input. Referring again to the Table, we see that for a power output which is 5 times the input, the gain must be 7 dB. Thus we can work from either unit to obtain the other.

TABLE I

DB	RATIO	DB	RATIO	
1.0	1.26	6.0	3.98	T
1.2	1.32	6.2	4.17	A
1.4	1.38	6.4	4.36	B
1.6	1.44	6.6	4.57	L
1.8	1.51	6.8	4.79	E
2.0	1.58	7.0	5.01	
2.2	1.66	7.2	5.25	O
2.4	1.74	7.4	5.50	F
2.6	1.82	7.6	5.75	
2.8	1.91	7.8	6.03	D
3.0	1.99	8.0	6.31	B
3.2	2.09	8.2	6.61	S
3.4	2.19	8.4	6.92	
3.6	2.29	8.6	7.24	F
3.8	2.40	8.8	7.59	O
4.0	2.51	9.0	7.94	R
4.2	2.63	9.2	8.32	
4.4	2.75	9.4	8.71	P
4.6	2.88	9.6	9.12	O
4.8	3.02	9.8	9.55	W
5.0	3.16	10.0	10.00	E
5.2	3.31	20.0	100.0	R
5.4	3.47	30.0	1000.0	
5.6	3.63	40.0	10,000	
5.8	3.80	50.0	100,000	

A further advantage to using decibels is the ease with which several calculations can be combined. With dB's, because they are logarithmic, we simply add the given values, but with ratios, we must multiply. For example, if we have two amplifiers, one with a gain of 2.6 dB and one with a gain of 3.4 dB, and if we connect them in series, we quickly calculate an overall gain of 2.6 + 3.4, or 6.0 dB. Using ratios, we would have to multiply 1.82 by 2.19 to get an overall gain of 3.98 (approx). Remember this also for values beyond the range of the Table. For instance, 26 dB = (20 + 6) dB. This is equivalent to a ratio of 100.00 TIMES 3.98, or approx. 400.

Consider an amplifier which delivers 2 watts (2000 milliwatts) when 10 milliwatts is put into it. Now let's find the gain in dB. The power gain is found by dividing the power output by the power input thus: 2000mw/10 mw = 200. Since a power gain of 200 cannot be read directly from Table I, it must be broken down into 2 times 100. Referring to Table I, we see that a power gain of 2 is 3 dB and of 100 is 20 dB. Thus the gain of the amplifier is simply 3 + 20, or 23 dB (remember to add dB).

A minus sign in front of a dB figure simply means that more power is going into the system than is coming out. We have a loss, or attenuation. This occurs when the power ratio is less than 1 (P1 less than P2 in the above equation).

We frequently see antennas listed as having 5, 6, 9, etc. dB gain. This does not imply that we are getting something for nothing. We are simply making it more sensitive in one direction at the expense of other directions. In order to be meaningful, we need to know what the reference

(Continued on page 6)

THE DECIBEL (Continued from page 5) is. The antenna has a 5 dB gain over what? In a lot of cases the gain is given with reference to a half-wave dipole although vertical antennas may be referenced to a quarter-wave groundplane. In still other cases, the gain of an antenna may be given with reference to what is called a 'point source' (an antenna with equal response in all directions) which is in itself a hypothetical case since all antennas have finite physical dimensions and cannot be regarded as 'point sources'. A half-wave dipole, for calculation purposes, is considered to have a gain of 2 dB over a so-called 'point source'.

Transmission lines also introduce losses into a system. These are usually expressed as so many dB per 100 feet. RG-58/U for instance is listed as having an attenuation (loss) of 6 dB per 100 feet at 144 MHz. This indicates that an antenna fed with 100 feet of RG-58/U at 144MHz by a transmitter putting out 10 watts will only receive 2.5 watts to radiate. A similar arrangement using RG-8/U (attenuation 2.5 dB per 100 feet) would result in over 5 watts reaching the antenna while the use of RG-17/U (attenuation 1 dB per 100 feet) would result in almost 8 watts reaching the antenna. A recent discussion overheard on the Amateur Bands included the statement that a certain length of RG-58/U would result in a loss of a stated number of watts. Even though this statement was given credence by having been verified with the use of a very expensive type of watt-meter, it is still highly misleading unless the input wattage is also specified. In the example above, using RG58/U, 7.5 watts were lost in the feed-line. If the transmitter output power, however, had been 40 watts, then 30 watts would have been lost.

One frequently finds the use of the term dBm which refers to decibels relative to one milliwatt of power which has become more or less a standard reference level. One watt of power would then be represented by +30 dBm while -3 dBm would represent 0.5 milliwatt. Other specialized terms mainly limited to sound or audio work, are dBW, dBV, dBA and dBRN. It all boils down, however, to selecting a suitable and convenient reference level.

Decibel measurements may also be applied to voltage and current relationships as well as to power levels. Remembering Ohm's Law, we recall that a squared term is introduced when power is related to voltage or current. Converting this to a logarithm introduces a 'times 2' factor and our equation becomes: $dB = 20 \log_{10}(E1/E2) = 20 \log_{10}(I1/I2)$.

It is also interesting to think carefully about some of the repo reports given in Amateur exchanges. If you tell someone he is 20-over-9, what are you really telling him? You are really saying that he can reduce his power by a factor of 100 and still have an S-9 signal. Thus, if he is running a kilowatt, you are saying that he can reduce his power to 10 watts and still have an S-9 signal (and a much reduced hydro bill at his own location). With practice and frequent use, one will find the decibel a very convenient tool, but we need to know its workings and what we are really talking about when we use it. It saves the handling of large numbers (60 dB is one million times) and, in many cases, lengthy descriptions. When a number of amplifiers and transmission lines are involved, the overall performance is obtained by a simple algebraic addition rather than a complicated exercise in multiplication. It provides a convenient shorthand notation for power ratios and simplifies overall system analysis. (VE3BYX)

FM ON TEN METERS may be increasing in the near future. The FCC has recently authorized the operation of repeaters on 29.5 through 29.7 MHz without special proof of need as has been required up to now. Cross-banding of repeaters is now legal in the USA but a Technician's signal may not be rebroadcast through one on 29 MHz. Wideband is also permitted, but not for Canadian stations using any such machine because we are limited to a carrier deviation not exceeding +/- 3 kHz at this frequency.

PRIVATE CALLING An idea has been suggested to the Greater Montreal Repeater Council which has considerable merit and warrants further discussion. As you are all aware, two-metre spectrum space is becoming more and more scarce. There are several requests for 'private' frequencies and while it is not the policy of a Repeater Council to control the use of direct frequencies, it is in our best interest to see that interference is kept to a minimum. Many of those who are using 'private' calling channels (and those who are not as well) could be well served by a calling channel on which some form of selective calling is employed so that you would not have to listen to all the calls being made through the repeater.

While this idea, or some modification of it, has no doubt suggested itself to many of us, and has indeed been put into practice by a few, the technical details and lack of assurance that someone else won't pick the same code may have deterred others. There may now be a way to overcome these details.

Suppose a simple, two digit, touchtone decoder which required connections only to the speaker and power leads were to be made available in kit form for about $20.00. Suppose the Repeater Council were to keep track of, and assign, two digit codes to anyone who wished them. Suppose a certain direct frequency, or even a repeater, were to be set aside for this purpose. How much interest would there be in trying to make this plan work? The decoder could include a timer and relay to operate a recorder .

All you would have to do then to listen for calls is to leave your receiver and decoder on. Your speaker would be silent until someone dialed your code. Only then would your speaker come on, say, for thirty seconds. Of course, rag-chewing would be discouraged on this frequency. The latest word out of Montreal is that a repeater will soon be installed on 37/97 for this purpose.

The Greater Montreal Repeater Council are asking for comments from Amateurs in their area on this proposal. (Marcogram, May, 1976)

(This idea, or something similar certainly merits further discussion. Is there a need, however, for a special repeater? Could it not be operated through an existing repeater? The decoder could be arranged to operate an alarm at places other than your operating area and you could then be reached when you were not in or near your Ham Shack. I have heard a similar proposal discussed with regard to emergency situations late at night when no-one is on the repeater. Yes, there are such times! People will say, "Oh, there's always someone around!" But this isn't always the case. There are very few Amateurs in this area who would not be willing to take their turn in manning such an alarm system on an all-night basis and in getting up at any hour to answer a TRUE EMERGENCY call. I don't think it would be abused, and the number of calls would be so few as to be almost non-existant. But the fact that such a system was in existance and operating would be a credit to the Amateurs of this area. An alternative would be full-time Autopatch on the most popular repeater frequency and such late-night emergency situations should in themselves justify Autopatch, or the proposed alarm system. -Ed.)-

OSCAR ORBIT INFORMATION may be easily predicted for several weeks by simple calculations if given a reference orbit to begin with.

OSCAR VI:	To update 1 orbit,	add 1 hr 55 min and 29 deg.	
	" " 13 "	(1 day) "	0 " 55 min and 14 deg.
	" " 88 "	(1 week) "	0 " 39 min and 10 deg.
OSCAR VII:	To update 1 orbit,	add 1 hr 55 min and 29 deg.	
	" " 13 "	(1 day) "	0 " 55 min and 14 deg.
	" " 88 "	(1 week) "	0 " 36 min and 9 deg.

This information is rounded to the nearest deg and min. If repeated often enough, errors will creep in. Current orbit information is:

OSCAR VI : Orbit #17736; Sept 1, 1976; Eq crossing (S-N) 66.13 deg; Time0053Z
OSCAR VII: Orbit # 8210; Sept 1, 1976; Eq crossing (S-N) 59.35 deg; Time0038Z

NEW DOC PROPOSAL In response to a number of requests over the past several years, the DOC have proposed the addition of two certificates in addition to the present two permitting operation in the Amateur Experimental Service.

One certificate,termed 'Experimental', would be aimed at those persons interested only in experimentation. It would require in-depth knowledge of radio and electronic theory, but no Morse code requirement. After six months on frequencies above 50 MHz, full priviledges would be granted on all bands (including CW at 1000 watts!input!).

The other certificate, termed 'Novice', is intended for communication-oriented persons and would permit CW operation only (code requirement - 5 words-per-minute) on on a 50 kHz segment from each of the 80, 40, 15 and 10 meter Amateur bands. (I have no information on the technical requirements for this class). Power input would be 100 watts and the certificate would be for two years and non-renewable.

The DOC already issues 'experimental station licences' on non-Amateur frequencies provided the station is 'intended for experimentation and any radiocommunication service it may perform does not fall within some other category of service...for experimental, demonstration or educational purposes...testing or development of communication equipment or of radiocommunication circuits...normally authorized for operation with dummy non-radiating antennas; however, on-the-air tests may be authorized on a non-interference basis...'.(CARF News Service) (I am not clear if this criterion would also be applied to the proposed Amateur 'Experimental' Certificate. If so, does 'other category of service' refer to other classes of Amateur certificates? Is not 'experimental,demonstration,educational,testing and development' what is being done on the Amateur bands now? Does 'non-interfering' mean to other Amateur stations? There are a lot of unanswered questions).

If sufficient interest is shown, the DOC intends to prepare draft amendments to be published for comment in the Canada Gazette. To receive consideration before this draft is prepared, your comments must reach the DOC before October 31, 1976. Direct your comments to: Mr. W.W. Scott, Director, Operations Branch, Telecommunication Regulatory Service, Department of Communications, 300 Slater Street, Ottawa, Ontario, K1A ØC8.

AN OPEN LETTER to Ron Hesler, VE1SH, Canadian Director, ARRL.

Dear Ron:- Your "voting" card has over-simplified a very important problem and can easily result in false results. For example:
-as proposed...an "experimenter" can obtain full Amateur priviledges in one year without any code requirement...grossly unfair to Advanced Amateurs.
-power restrictions are impractical; they cannot be adequately policed... many "commercial" Amateur transmitters are rated in the 150-200 watt range.
-there is a distinct danger to safety communications if "no code" operation is permitted (especially on the lower frequencies); i.e., no recognition of distress signals resulting in interference or, worse, no action being taken.

The above are just a few. "Be careful what you ask for, you may get it!" Consequently, I can only mark my ballot in a most emphatic negative to all questions. A.P. Stark, VE3ZS

EMERGENCY COMMUNICATIONS Should you become involved in distress traffic such as calls for assistance from ships at sea or aircraft, the following Department of National Defence Rescue Co-ordination Centre number may be called collect: (613)-392-2811 (for this area). Such distress traffic must be accurately logged and reported to the nearest DOC office. International emergency traffic such as occurred during the Guatemala earthquake regarding government messages or the welfare of Canadian citizens should go through the Department of External Affairs, (613)-996-8885.
(CARF News Service)

THE NEW REGULATIONS as recently proposed by the Department of Communications are receiving a lot of comment and discussion in Amateur circles these days. And well they might as they are a radical departure from Amateur Radio as we are used to it. The subject deserves our deepest thought, with all prejudices, tradition and dog-in-the-manger attitudes laid aside. While the Amateur population of Canada has been increasing, it has not been keeping pace with the population as a whole. Other services requiring, or using, the radio spectrum have been increasing percentage-wise faster than the population growth. There is no doubt that we need a far greater increase in growth to justify our keeping the spectrum we now occupy. But is this the way to go? The tremendous growth experienced by the General Radio Service band over the past several months indicates that the interest is there. It appears as though this is an attempt to channel some of that interest into the Amateur ranks. We need it for growth but we can do without some of the insane behaviour which occurs on the GRS band.

The DOC have asked for individual comments (see page 8) and Amateur organizations are busy conducting their own polls and preparing their collective briefs. The questionnaire below is essentially the same as the one being circulated by CARF, the Canadian Amateur Radio Federation. In order that we can obtain the feeling of the OARC as a whole and to help in preparing any brief which may be submitted, we ask that you fill it out and return it either to the Secretary at the September meeting or to Box 8873, Ottawa , K1G 3J2 BEFORE September 25, 1976. The results will be passed on to CARF for their information but this questionnaire in no way supplants or replaces the one circulated by them. (Ed.)

Q U E S T I O N N A I R E

A. ARE YOU IN FAVOUR OF A "NO-CODE" EXPERIMENTER CLASS CERTIFICATE? circle your choice

YES - AS PROPOSED BY DOC (1000 watts, all modes, all bands). 1
YES - BUT LIMITED TO WORKING ABOVE 50 MHZ - NO HF PRIVILEDGES. . . .2
YES - BUT LIMITED TO 220 MHZ AND ABOVE, PLUS 50-54 MHZ. 3
YES - BUT LIMITED TO 144 MHZ AND ABOVE. 4
NO -- NOT IN FAVOUR AT ALL. 5
NO -- BUT I WOULD BE IN FAVOUR OF. 6

B. ARE YOU IN FAVOUR OF A NOVICE CLASS 5 WORD_PER_MINUTE CERTIFICATE?

YES - AS PROPOSED BY DOC (90 watts, CW on parts of 80/40/15/10 M). .1
YES - BUT WITH 100 WATTS ONLY ON ANY PART OF 80/40/15/10 M. 2
YES - BUT WITH LIMITS WRITTEN ON A SEPARATE SHEET ENCLOSED HEREWITH 3
NO -- NOT IN FAVOUR OF A SEPARATE NOVICE CLASS, SIMPLIFY PRESENT REQUIREMENTS 4
NO -- NOT IN FAVOUR (No change to present requirements). 5
NO -- BUT I WOULD BE IN FAVOUR OF:. 6

C. I have returned, or will return, the CARF questionnaire. . .YES NO

I have replied, or will reply, personally to the DOC. . . . YES NO

NAME. . . . . CALL. . . . . .

THE OTTAWA AMATEUR RADIO CLUB
BOX 8873, OTTAWA, ONTARIO,
CANADA, K1G 3J2

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FIRST CLASS MAIL

THE OTTAWA AMATEUR RADIO CLUB		P.O. BOX 8873 OTTAWA, ONT., CAN., K1G 3J2	
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Archivist	VE3CNJ	K1G 1M1	
Electro-Mag.	Bill Westbrook	1494 Ridgebrook Dr., Ottawa, Ont.	749-3373
Interference	VE3EKA	K1B 4K7	239-5953
Coffee	Sean Huntley	109 Clearview Avenue, Ottawa, Ont.	722-9467
	VE3HXP	K1Y 2L1	