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GROUNDWAVE

THE OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB

P.O. BOX 8873, OTTAWA, ONTARIO, K1G 5J2

JANUARY 1979

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 NEW YEAR'S DAY C V A E P S	2	3 OARC GENERAL MEETING (ELECTION)	4	5	6
7	8 I C T R A A L P	9	10	11	12	13
14	15 G O I O T C Y H	16	17	18	19	20 GROUNDWAVE ARTICLE DEADLINE
21	22 N O U T R S	23	24	25	26	27 GROUNDWAVE FINAL DEADLINE
28	29	30	31 RSO CONVENTION COMMITTEE			

: THE GROUNDWAVE - OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB - JANUARY 1979
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THE OTTAWA AMATEUR RADIO CLUB is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the Ottawa regional area, and to the advancement of the technical competence and achievement of Club members.

THE CAPITAL CITY NET meets every Monday evening at 2000 hours on the Club repeater, VE2CRA (146.34/146.94), 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, VE3GX, is also repeated at this time. To list items or make enquiries, call Ed at 733-1721.

THE NEXT REGULAR MEETING of the Ottawa Amateur Radio Club will be held at the National Research Council Auditorium, 100 Sussex Drive, Ottawa, on Wednesday, January 3, 1979, at 2000 hours. The main item on the program will be the election of officers for 1979 and a vote on the incorporation of the OARC.

AN ENGRAVING PENCIL is available to OARC members to mark their valuables for positive identification in case of loss or theft. For further information contact: Penny Robinson, VE3ERO, at 225-1276.

MAUREEN NEILL, VE3FZY, will visit any Amateur confined to the Civic Hospital. Call Maureen at 725-4581 (233-9941 after 5:30) if you know of anyone who would appreciate a visit. Maureen is also collecting DOMINION STORE CASH REGISTER TAPES on behalf of the OARC so save up your tapes and give them to Maureen or any member of the Executive at your convenience.

1978 CALLBOOKS are available at the Orleans Public Library (open evenings) for use at the Library. See Bert, VE3GOK, for further details.

THE OARC NEEDS someone to look after the handling of ARRL subscriptions and renewals. The ARRL has a policy whereas affiliated Club members may subscribe or renew through their respective clubs and a rebate of \$1.50 per subscription or renewal will be allowed to the Club. With a few renewals, this amounts to a worthwhile amount which can be used for some special Club project. The work is minimal and you would be doing your own special 'bit' for the Club. Contact the President or any member of the Executive if you can help in this way.

THE RSO CONVENTION (1979) COMMITTEE will meet next on Wednesday, January 31, 1979, in the CERA Boardroom, 150 Isabella St., Ottawa. This will be 'Budget Night' so all committee heads should come prepared to discuss their requirements.

H A P P Y N E W Y E A R

MINUTES OF OARC GENERAL MEETING, DECEMBER 6, 1978

Meeting brought to order at 20:05 by Warren VESRU, President.

Visitors and new amateurs were welcomed by the President and those in attendance.

Correction to November 1 General Meeting minutes:

The prizes offered to the winners of the Home Brew/Night/Bunny Hunt were one year's subscription to QST, '78, Ham Horizon, CQ or Ham Radio or a \$15.00 gift certificate from Dytown Marine.

Winner Gord VESGJC should read VE5GCG.

Minutes were then accepted as correct on a motion by Bud VESUD; seconded by Jerry VE3CKJ. Carried.

Unfinished Business:

Warren advised that it had been hoped that the incorporation papers for the OARC would be complete and ready for presentation at this General Meeting. The finalized papers have not been received by Mr. Wolfe but they are expected momentarily. It was pointed out that once the papers are completed the Club is in fact an incorporated body.

Committee Reports:

Nominating Committee: Ken VE3PU Chairman of the Nominating Committee introduced the slate of officers which the Committee has been able to put together for the 1979 elections to be held at the January General Meeting:

Directors:	Gord Grant	VE3DY;	Ted Balastre	VE3CAF	(5 to be
	George Roach	VE5RNO	Ken Duncan	VE3EER	elected)

Secretary: Marilyn Duncan VE3JDS

Treasurer: John Gilbert VE5CJL

V/President: Ray James VE3CQA

President: Larry Bradley VE3GIX

Bill Thorne VE5IDC

(Howie advised that Bill will be unable to accept the nomination as he will be out of town. The Committee has not been officially notified by Bill.)

The Nominating Committee would like to see more names appear on the slate of officers. If you are interested or have a suggestion for the Committee, contact any member of the Committee.

CHRISTMAS Santa Claus Broadcast: Dave VE3ELU Chairman of the Santa Claus Broadcast at the Children's Hospital advised that everything is ready to go. He has a number of operators now, however, anyone interested in helping is requested to contact Dave at 525-2544. The broadcast will be on December 14 from 17:00 - 21:00 on 52D - 76D - and 33D. Dave is in need of portable 1 watt rigs.

Santa Claus on VE3CQA will be on Sunday, December 24 from 16:00 - 21:00. Santa Claus will be English and French but not always bilingual, Dave advised. He urges amateurs to collect as many children in the neighbourhood for this event; this is a sure way to improve relations with neighbours.

RSO Convention Committee: Next meeting of the Committee will be Thursday, December 7, at 20:00 at CEMA. Penny extends an invitation to anyone interested in attending.

Information Sharing: The members were advised that the next DOC examinations will be held on January 24; the application for writing the examination has to be registered with DOC by December 22.

Anyone interested in becoming a Net Controller for the Capital City Net on Monday evenings, is requested to contact Larry, VE3CRK.

New Business:

Bank Harley VE3ED who in the past has taken subscriptions for OARC members to ARRL has moved from the area. Warren is looking for a volunteer replacement. Remember, the Club receives .50¢ for each new subscription. Anyone interested is requested to contact Warren.

Program of Evening: Dr. Torry McComb who is presently engaged in research in high voltage impulse measuring systems at the NRC presented a talk. With the use of slides Dr. McComb explained the types of lightning, how to install a proper grounding system, etc. A question/answer period followed. Bud VESUD, on behalf of the members

(Continued on page 4)

MINUTES OF THE PREVIOUS MEETING (Continued from page 3)

thanked Dr. McComb for a very interesting and informative talk.

Bob VE7BS/3, just returned from a pre-workshop on WARC in Geneva, shared with the gathering some of the feelings and outcome of the workshop. A lively question/answer period followed.

There was no coffee and cookies following the meeting as Sean VE3HXP was not available and had not contacted Warren.

Announcements:

Next Executive Meeting will be held on December 18 at 20:00 at CPRA.

Next General Meeting is on January 3 which will be election night for the 1979 Executive.

Meeting adjourned at 22:15 on a motion by Merve VE3CV; seconded by Ron VE3AUM. Carried.

Jan Godwin, VE3JM, Secretary

Warren Huget, VE3RU, President

LETTER TO THE EDITOR

SUN CITY CENTER,
Florida, 14Dec78

The Editor, GROUNDWAVE:

There is a service that all us service-minded hams could provide, aside from Topstar, and that is to all us UNFORTUNATE refugees marooned in Florida. We miss the CBC and we miss talking to all our friends back in Ottawa. But if some of you storm-bound fellers would tune into that QRM called the "US" band, you would find a great group to talk to. Fifteen metres and 10 metres provide good circuits at the right times. There are a lot of VE3/4s here and it is nice to hear a familiar accent again.

21.270 from 10:00 to 14:00 EST on the hour is a good place to listen. On 10 metres, a group of us have migrated to 29.250 to get away from the QRM. 11:00 to 13:00 EST seem to be the best times, with our present skeds at 11:30. The band is fickle, but interesting.

Dave, VE3IX; Bill, VE3WB and Walt, VE3CLJ are some of the devoted ones but we need more. I think that we need a contest to see who can keep the most skeds with /W4s, and I'll provide the prize next April -- a bushel of fresh oranges. Let's get going on the 'Snowbirds Net'. See u guys on the air. 73,

Gord Grant, VE3DY/W4

(Really, Gord! - marooned? I haven't seen many tears shed yet! But there you have it, Club members - the idea for a contest, and the reward. How about some simple rules, like - total number of contacts with stations operating /W4, one contact per station per day during January, February and March to be counted toward the grand total - and maybe a bonus of one orange per contact with VE3DY/W4 - and be sure to tell him how sorry you feel for him, really, now!!! Ed.)

ELECTION OF OFFICERS

Since the report of the nominating committee at the last meeting, another name has been regularly proposed by the required number of full OARC members. Thus the slate of nominees to be voted on at the January meeting is as follows:

President: Larry Bradley, VE3CRK

Bill Thorne, VE3IDC, (possibly withdrawn because of a distant posting)

V/President: Ray James, VE3CUA, (accl.)

Secretary: Marilyn Duncan, VE3JDS, (accl.)

Treasurer: John Gilbert, VE3CXL, (accl.)

Directors: Gord Grant, VE3DY

(3 to be George Roach, VE3BNO

electd) Ted Balastita, VE3CAF

Ken Duncan, VE3EER

Harrie Jones, VE3HYS

The upcoming year is another big one for the OARC with the RSO Convention here this fall under our auspices. Look well to your ballot and vote for the good of the Club.

CANADIAN AMATEURS working and supporting satellite activities have incorporated federally. The organization "Radio Amateur Satellite Association, Inc." will be known as "AMSAT CANADA". John Henry, VE2VQ, (formerly VE2DNM) is the president. (CARF News Service)

RE AMATEUR TOWERS The Ministry of Communications has re-introduced a bill to become the Communications Act in Parliament. It failed to reach final reading and assent during the last session due to its low priority but it has been introduced again. Its main interest for Amateurs is that it asserts federal authority over radio towers. - - - - - (Credit: The Canadian Amateur)

LETTER TO THE EDITOR

Dear Carl:- We are trying to publicize our two new awards as much as possible. I am asking some of the bigger Amateur club bulletins to consider the idea of enclosing our info ...on the award with the next issue of their club bulletin.....

Thank you - 73.

Gordon Woroshelo, VE3EYW

(Thanks Gord - herewith the information you enclosed, 73 and good luck, Ed.)

CERTIFICATE AWARDS - NEWS INFORMATION

News Release - November 24, 1978

-THE SAULT STE. MARIE AWARD

Requirements: To work 8 different Sault Ste. Marie stations within any 10 month consecutive period. Special endorsement stickers will be available for all one band and/or one mode contacts. Usual log information such as RST, date, time, frequency, mode, etc. required. Award cost is \$1.00 each plus 14% stamp for postage with endorsement stickers 60% each postpaid. Different coloured stickers will be provided for each new combination. Consideration will be given to SWL reports.

Send info to: Gord Woroshelo, VE3EYW,
Award Custodian, 15 Grandmont Cres.,
Sault Ste. Marie, Ontario, Canada,
P6B 3W1

-THE NORTHERN ONTARIO AWARD

Requirements: To work 8 Northern Ontario stations in 8 different locations (cities, towns villages, etc.) on one band during any consecutive 8 month period. Special endorsement stickers will be available, in different colours, for each different band and mode worked. Consideration will be given to SWL reports. Usual log information is required - station worked, time, RST, date, frequency, mode, etc. Award cost is \$1.00 plus a 14% postage stamp and 60% for each endorsement sticker, postpaid.

Send info to: Gord Woroshelo, VE3EYW,
Award Custodian, 15 Grandmont Cres.,
Sault Ste. Marie, Ontario Canada,
P6B 3W1

-THE ABOVE AWARDS are sponsored by the St Joseph Island Repeater Association and all profits go to this group to help finance its operation. Extra copies of the info sheet are available for the asking.

We are asking all Net Controllers, Managers, Club Chairmen, Secretarits, Bulletin Editors, etc. to please mention at every opportunity. Direct all enquiries to the Award Custodian. Happy Award Hunting!
Gord Woroshelo, VE3EYW

THE PRESIDENT'S COLUMN

With the termination of my term of office as your President at the next regular meeting, I wish to thank all those members of the Executive, Committee Chairmen and other members who assisted in making the past year a successful one as far as the Club is concerned.

I trust that all members and their families have had a Happy and Safe Christmas and I wish you all the very best for 1979.

Please remember that the next regular meeting on January 3, 1979, is election night. Come out and cast your vote for the members you wish to become the next executive.

Warren, VE3RU

NEW REPEATER Not another repeater in town, you say? Wait...this one's different! In just a few weeks, a 2-6 metre crossband repeater will go into operation.

The 6-metre repeater, VE3OCR, is an extension to the 146.25/35 machine operated by the Carleton University ARC and will operate on a single input-output frequency of 53.150 MHz.

Any signal on the 2-metre input frequency will appear on 53.150 MHz as well as on the regular 2-metre output. When the 6-metre output 'drops', any signal on 53.150 will be repeated on the 2-metre output.

The single input-output frequency on 6-metres is designed for B47 tank radios. Anyone with a '47' set will be able to converse with someone operating on two metres. Users of the two metre repeater may find themselves talking to 'DX' from the six metre band without the bother of tripping up 5 other 2-metre repeaters in the process.

Information on the B47 radio, as well as photocopies of schematic-block diagrams, etc. can be obtained for the copying cost from Dwayne Bruce, VE3FXI, 225-9920, or from Brett Delmago, VE3JIG, 225-6275 or 231-3670. (Brett, VE3JIG)

COMPUTER HOBBYISTS 8008 and 8080 Microcomputers FOR SALE. Great for anyone from experimenter to professional. Complete or partial system as per your budget. 8K RAM kits w or w/o 2102s, TVT-32/TVT-34 video-cassette boards. Call Keith Ryan, 741-7937(R) or 593-6030(O) anytime.

AROUND THE CLUBS - gleaned from recent exchange bulletins.

-Skywide ARC - sponsor an 'in-club' award for CW operation

Ottawa Valley Mobile RC - have a new bulletin editor, George, VE3GAI.

Rochester ARC - handed over \$2500 of 'goodies' at their recent auction.

Guelph ARC - held a very successful banquet.

Windsor ARC - lost their meeting-place, a church hall, through fire.

Kitchener-Waterloo ARC - are trying to organize on-the-air chess matches.

St. Paul (Minn.) ARC - are planning a family Christmas meeting.

Brandon (Man.) ARC - have installed an antenna and feed-line on the local police communication tower for public service and emergency use.

Welland County ARC - code and theory classes are in full swing.

The Ontario Trilliums ARC - continue their dedicated work with the QSL Bureau.

Hamilton ARC - are planning a 'repeater appreciation week' (shut-down) for their local machine.

VE2RM ARC - are looking for a new bulletin editor.

Burlington ARC - are beginning to plan for the 1979 Ontario HamFest.

London ARC - are relaxing after an excellent RSO Convention but are laying plans for assistance with the CKSL Toy Drive.

QSLING CAN BE DANGEROUS

The following is quoted from a letter received from a US ham working overseas in a politically-sensitive country.

"Please listen to a DX station when he gives you QSL info and then follow it exactly. I have particularly asked every W/VE worked NOT to QSL yet I have before me several which say, "I know you said you didn't need one." Under the wrong circumstances a QSL card can cause an amateur to be imprisoned.

"Never, NEVER, mail a QSL to a DX station except in a plain envelope with absolutely NO mention of things radio on the outside. If he asks that you use the Bureau, then USE IT.

In their enthusiasm, many hams do not seem to realize that in most parts of the world, Amateur Radio - on a scale of 'things we like most' - is placed just below leprosy! In this country, mere possession of an SSB receiver means imprisonment for a national, for me it

'T'WAS THE NIGHT OF THE CONTEST

(with apologies to St. Nick)

'Twas the night of the contest and I gave a shrug,

Not a creature was stirring - not even a bug. The dipoles were strung from the tower with care,

In hope that the 'DX' soon would be there, While visions of 'contest points' danced in my head

And the hope that band 30 would not be all dead.

While out on the band there arose such a clatter,

I sprang to the rig to see what was the matter.

Away to the key - I replied like a demon,

-Forgot about tuning - I kept on a-steamin'.

When, what to my wondering ears should appear,

But a QSB signal that was faint to the ear. With these band conditions and a fast radio

fix, I knew in a moment it must be DX.

More rapid than my receiving it came,

The rare QTH that would win me the game.

With an increase in power, he called me again,

I turned to my tuning and turned up the gain.

To the top of all Hamdom I now could arise,

For a contact like this would assure me first

prize.

And then in a twinkling I heard through the

space,

Clear dit-ing and dah-ing from his far-away place,

His QTH now he said was in France,

I knew I would win - I started to dance.

I replied with an RST five-double-nine,

He said that my signal had been just as fine.

Then he said, 'I must go - good luck - 73's',

And I said, 'It's been fun but please, QSL

please'.

But I heard him reply as the band neared its doom,

'Happy DX to all - HFM TO C U ALL SOON'.

-Happy New Year, Chris Bisailion,

VE3CBK-

would mean a month or more in prison or deportation."

As requested, the writer's name is withheld. In addition to making life uncertain for the DX operator, identifying him as a ham may insure that he never receives your letter. In some countries, postal clerks know that IRGs and currency are sent to hams and pilfer such letters. So remember to follow QSL instructions RELIGIOUSLY! (Credit: QSL via Guelph ARC Bulletin)

SANTA BY AMATEUR RADIO

Well, we did it again, only better! On the evening of December 14, approx. 80 patients at the Children's Hospital of Eastern Ontario were able to speak to Santa Claus via Amateur Radio.

This has got to be one of the most satisfying, and incidentally one of the best public relations efforts undertaken by Ottawa area Amateurs. This year we received very favourable publicity from the Ottawa Citizen (if you saw a rather strange article with a picture of a slim, mustachioed VE3DWL, you were reading the first edition - later editions were corrected!).

The key to the smooth operation is the effort of the co-ordinators - who work on a separate frequency - and solve the problems, of which there are always more than enough, before Santa or the children can even become aware of them. Co-ordinators were VE3DWL and VE3HYS - who deserve a special vote of gratitude from all involved.

Thanks also to all area Amateurs who kept our frequencies clear for the duration of the exercise. You can be sure that all patients, parents and members of the staff of the Children's Hospital now have a soft spot for Amateur Radio.

Those involved were VESa DWL, HYS, EHC, UD, JGW, GBE, FXP, GCK, ERC, GOJ, IDC, KJD, GFR, JRO and HLU. VE3JDC saved our necks by replacing VE2BSM, who was confined to bed, on less than two hours notice. VE3ZS kindly donated equipment for the exercise.

The other part of our Christmas communications is the appearance of Santa on VE2ORA on Christmas Eve. By the time this article is read it will all be past history, but it is anticipated that we will do even better than last year when about 80 area children talked to Santa - thanks to the wonder of Amateur Radio. The operation began at 4:30 p.m. on Christmas Eve and continued until all children had a chance for a brief chat with Santa.

CBC Television is planning to cover this event so hopefully you will all have seen another valuable piece of public relations for Amateur Radio.

Those involved in this operation were VESs BYE, GCK, CLJ, JRO, DWL and HLU.

(Dave Holford, VE3HLU)

(For further comments on the Children's Hospital operation, see page 10. EG.)

CANADIAN FORCES AFFILIATE RADIO SYSTEM

On November 1, 1978, Capt. Ron Geberdt spoke to the OARC on the subject of the proposed Canadian Forces Affiliate Radio System (CFARS). Herewith follows a brief resume of the proposal.

Since the 1950s, Amateur stations have been handling traffic for Canadian Forces personnel on an informal basis to such places as the Congo, Middle East, Canadian ships at sea, the Canadian North, etc. This has been appreciated and encouraged by the Dept. of National Defence as a key morale booster for these remote/isolated posts.

However, the task of finding licensed operators for the remote Amateur stations and the problem of interference have delayed traffic at times and made it necessary at times to close some isolated stations. DND has therefore, decided to set up and operate the Affiliate System (CFARS).

Basically, it will operate in a similar fashion to the MARS program in the US. Special frequencies just outside the Amateur bands will be used, membership will include military, military Amateur and civilian affiliate Amateur stations, military operating procedure will be used, special CFARS call signs will be used and several different nets are contemplated. Trials conducted during April and May of 1978 on 13972.5 kHz were extremely successful and tests conducted by DOC at that time indicated that the Amateur equipment being used was well within the allowed frequency tolerance and stability requirements.

Many details will have to be ironed out before the system is ready. A CFARS operating manual will be prepared, a full range of frequencies will have to be allocated by DOC, approval for Amateurs to use these frequencies will have to be given, membership details will have to be worked out, etc.

CFARS should improve communications by eliminating interference/QRM which has caused delays in the past and also ensure that isolated locations will not be shut down because of no available licensed Amateur operator. It will also provide an expanded horizon for Amateurs inclined to the traffic/message handling aspect of the hobby, provide another way to perform a public service and ensure a continued close association with the military.

(Information obtained from Capt. Geberdt's talk and from The Manitoba Amateur)

SIGN ON A CIVIL SERVANT'S DESK:

"The secrecy of my job does not permit me to know what I am doing!"

RS SATELLITES IN ORBIT

On October 26, 1978 at approx 1930 UTC two of the long-awaited Russian RS satellites were finally launched along with COSMOS 1045. They are to celebrate the 60th anniversary of the Russian youth organization known as Komsomol and a translation of the official Russian announcement over their Shortwave Domestic Service reads in part:

"The launching of one carrier rocket with the artificial earth satellites Radio-1, Radio-2 and Cosmos 1045 has been carried out in the Soviet Union.

"On satellites Radio-1 and Radio-2 equipment is installed for Amateur Radio communications and for the conduct of scientific-technical experiments and study.

"On the satellite in the cosmos series equipment is installed designed to continue research of space, of a radio system for the precise measurement of the elements of an orbit, and of a radiotelemetry system for transmitting to earth data on the operation of instruments.

"Communications sessions via Radio-1 and Radio-2 satellites will be conducted in accordance with the planned program.

"Data necessary for the organization of Amateur Radio communications will be published in the press and will be announced via the radio stations of the Central Radio Club, and the Reception and Command Posts of the USSR DOSAAF.

"Control of the operation of the satellites Radio-1 and Radio-2 and the reception and processing of the information coming from them is done by ground reception and command posts of DOSAAF.

"The Creative Collectives which have created Radio-1 and Radio-2 satellites, and the and the ground reception and command posts, dedicate this space experiment to the 60th Leninist Komsomol Anniversary."

RS-1 can be identified by its transmission of "RS" preceding the telemetry data blocks on the beacon channel at 29.402 MHz. RS-2 is identified by "RS RS". Both use the same beacon frequency. The telemetry data is transmitted in Morse code with a letter, two numerals and a letter comprising the data unit. The same first letter provides a line identification, with a new letter for the next line in the row. It is noted that where one row starts with a "C", the next will simply drop a dot to become a "K". This suggests an economy of storage provision in the systems.
(Credit: N. Chalfin, KBGX, in Worldradio)

CARF/CRRL SUMMIT MEETING

On Nov. 4, 1978, the Airport Hilton, Dorval, Quebec was the scene of a joint meeting between the Canadian Amateur Radio Federation and the Canadian Radio Relay League, organized through the good offices of Marv Nash, VESFON, President of the Radio Society of Ontario.

The agreed purpose of the meeting was to investigate methods of improving the service received by Canadian Amateurs, by the existing national organizations working more closely together. Participants included Marv Nash (RSO), Chairman; Eric Elliott (RSO), Secretary; Fred Towner (CARF); Bill Wilson (CARF); Ron Healer (CRRL) and Bill Loucks (CRRL).

The conclusion reached was that both organizations have more in common than that which separates them and that both organizations will work to the benefit of Radio Amateurs in Canada. It was agreed that CARF and CRRL would meet on a quarterly basis, as shall be arranged by the CARF President and the Director of CRRL.

Specific points discussed included:

1. Liason with DOC and other Federal Government Agencies. It was agreed to notify one another of submissions being made and to discuss and try to reach agreement on joint submissions.
2. Rapid Dissemination of Printed and Radio News. CRRL asked if it would be possible to include news from their organization in the present CARF News Letters and Radio Bulletins. CARF agreed to consult with their Directors on this point.
3. CARF/CRRL Liason. CARF/CRRL agreed that there was only one formal channel of communication and that was from CRRL Director to CARF President, or as delegated by them.
4. National Amateur Symposiums. CRRL asked if joint, or alternately sponsored, annual symposiums could be adopted. CARF agreed to refer this to their Board of Directors.
5. Liason with Provincial Societies. CARF/CRRL agreed that this should continue in the present manner, ie. between each national society and the provincial ones.
6. Canadian IARU Membership. CRRL agreed to accept CARF proposals for consideration by IARU.
7. QSL Bureaus. Each organization would consult with its own bureau in order to determine if there were any problem areas.

(Continued on page 9)

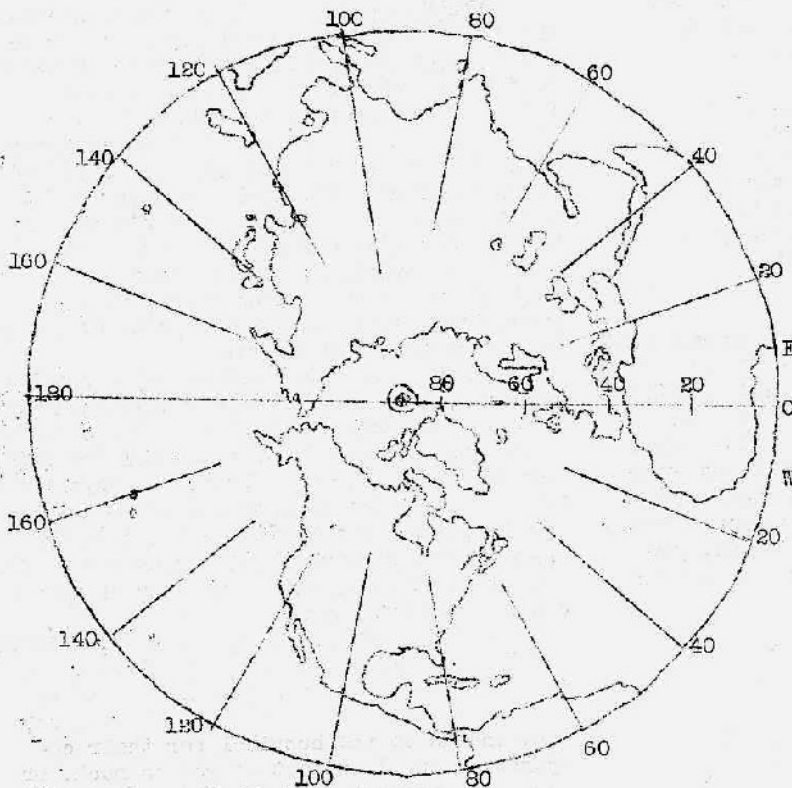


Figure 1 North Polar Projection

Orbital data for the RS satellites seems to vary according to what source is quoted. Even WLAW, in its bulletin of Dec. 21, 1978, gives a period of 120.3925 minutes but calculates reference orbits using a period of 120.40167 minutes. While this is not a great error, successive calculations compound the error until it is significant. Precession data seems to be more constant at 30.227 deg. Using this data, the predicted reference orbits (the first one of the new day in GMT) for New Year's weekend would be (for RS-1):

Dec 29	#764	0135.95Z	9.53	deg. E
	30	#776	0140.77Z	6.86 deg. E
	31	788	0145.59Z	4.14 deg. E
Jan 1	#800	0150.41Z	1.41	deg. E
	2	#812	0155.23Z	1.51 deg. W
	3	#824	0200.05Z	4.04 deg. W
	4	#835	0204.48Z	23.47 deg. E

For data for RS-2, add 15 minutes and 4 degrees to the above orbit predictions. Note that evening orbits are N to S in this area and thus come into view approx 30 minutes after the given equator crossings (Credit Worldradio (KSEGX) and WLAW)

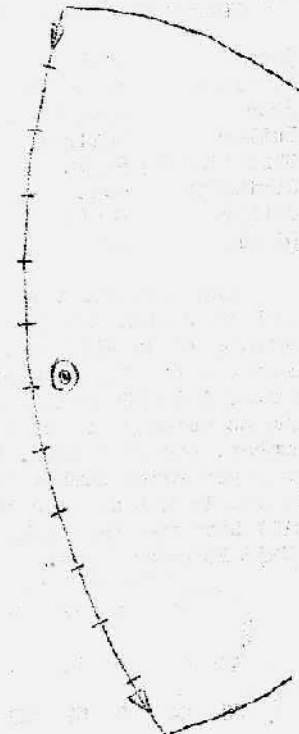


Figure 2 RS Satellite Orbital Track (Time ticks are in 5 minute intervals from the equator)

CARF/CRRL SUMMIT (Continued from p. 8)

8. Other agenda items included Emergency Communications, Traffic Nets, Public Relations and Contests and Training. It was agreed that all of these were of current low priority and no detailed discussion resulted.

The above information was taken from the 'summary of minutes' of the meeting which appears to be an initial step to more effective representation for Canadian Amateurs. A plaudit should go to RSO and its officers who chaired the meeting after assisting in getting it organized and under way.

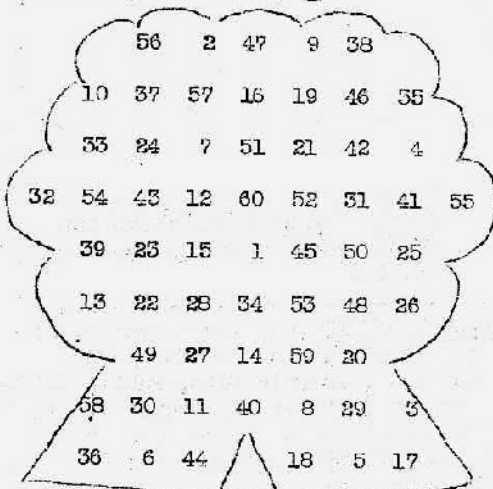
THE UNITED NATIONS in New York are looking for commercial operators to work in West Africa. All that is needed is a Second Class Certificate. Contact Mr. Boe at the U.N. in New York, telephone 1-212-754-6141.

 TO ERR IS HUMAN - to cover it up is too!!!

PUZZLE ANSWER for puzzle published last month. Here are the 23 types of antennas contained in the puzzle.

Dean	Dish	Long Wire
Beverage	Flat Top	Notch
Bruce	Ground Plane	Pylon
Butler	Helical	Vertical
Christiansen	Hertz	Windom
Covington	Horn	Wullenweber
Cutler	Lewis	Yagi
Dipole	Lodge	

How well did you do? Perhaps you will do better with the following - it has nothing to do with Amateur Radio! You'll need a watch and a pencil. Start with number 1 in the center of the illustration and as quickly as you can, cross out every number, one at a time, in numerical order. When you reach number 60, check your watch - if you took less than three minutes, you will have met the challenge of the Radnor (USA) Repeater News.



(Credit: ARNS Bulletin)

DON'T BE BASEFUL! (Credit: Kansas Bulletin via ARNS)

Volunteer something for your Club Bulletin.

Consider the following topics-

- PERSONAL ACTIVITY...Tell us what you have been up to lately, a change in jobs, new ham gear, new home, moved, new hair piece, or ...
- EDITORIAL COMMENT...You are invited to comment pro or con on any subject which would be of interest to Amateurs.

(Continued next column.....)

OPERATION NOEL A last minute sickness had VE3HLU worried, especially as his voice was rapidly diminishing, but again OPERATION NOEL was a resounding success. 100% of those expected turned out and there was plenty of rigs loaned for putting children in contact with Santa Claus. The children's expressions made the whole project worthwhile and, along with the parent's thanks, we all left with a feeling for the REAL Spirit of Christmas. I was proud to be a part of such a marvellous event, really recognizing that some of the greatest people in the world are Amateurs.

Unlike most other groups doing similar projects, ours was completely bilingual with Santa and helpers responding in the child's language. For the first time, helpers went into the Intensive Care Unit, the Psychiatric Ward and into two Isolation Rooms - no-one was left out. Our hearts went out to the ones putting up with varying sicknesses with such cheerfulness, there are many of us who could learn from them.

My very special thanks to Dave, VE3HLU, and Hugh, VE3DNL, the main organizers, and to all those who participated, none of us would have missed it for the world. Also, many thanks to the hospital for their co-operation and I suspect we got as much, or more, out of it than the children.

Thank you, Santa Claus.

On this very special note I would like to wish you all a very happy and prosperous new year, especially bearing in mind that 1979 will be a year that our Club is in view of all as it sponsors the RSO Convention.

US, Penny, VE3ERO

-FEATURE ARTICLE...Try your hand at writing a short article on DX, traffic handling, 10-X club, 2-metre activity... the list is endless.

-TECHNICAL ARTICLE...we will accept short articles of a technical nature, hints and kinks, construction techniques, etc.

-PUBLIC SERVICE ACTIVITIES...tell us what you or your club has done in the area of Public Service, after all, that is part of what Amateur Radio is all about.

-CLUB NEWS...Write about hamfests, auctions, picnics - give dates, places, times, and any other information concerning your club's, or other Amateur, activities.

-BULLETIN BOOSTER...Last, but very important, a yearly contribution from every member is needed to keep the Bulletin (read GROUNDWAVE) alive. How about sending your 1979 contribution today!

OTTAWA AMATEUR RADIO CLUB
P.O. Box 8873, Ottawa, Ontario.
K1G 3J2

MEMBERSHIP APPLICATION 197

IF PAID BY CHEQUE MAKE PAYABLE TO ABOVE.

SURNAME : GIVEN NAMES (OR NICKNAME) : CALL

ADDITIONAL NAMES (IF FAMILY MEMBERSHIP)

ADDRESS (STREET, CITY, PROVINCE) : POSTAL CODE

TEL: HOME : TEL: WORK : CLASS OF : (AMATEUR) (ADVANCED AMATEUR)
: : : CERTIFICATE (ASSOCIATE)

ACTIVITIES (PLEASE CHECK APPROPRIATE BOX)

BANDS

SSB _____
AM _____
VHF/FM _____
CW _____
RTTY _____
SSTV _____
VHF _____

PLEASE CHECK APPROPRIATE BOX

I AM A:

MEMBER

APPOINTEE

OFFICIAL

ARRL _____
RSO _____
CARP _____
RAOI _____

I HAVE A GAS DIESEL/GENERATOR : I HAVE A 2-METRE HAND-CARRIED PORTABLE
() YES () NO : () YES () NO

MY MAIN INTEREST IN AMATEUR RADIO IS: () HF () VHF () OTHER

WHAT WOULD YOU LIKE TO SEE THE OARC DO/NOT DO NEXT YEAR?

(Applicant to complete at same time as above)

OARC MEMBERSHIP - 197

RECEIVED FROM _____ AMOUNT OF \$ _____

SIGNATURE
MEMBERSHIP CHAIRMAN

DATE

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



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