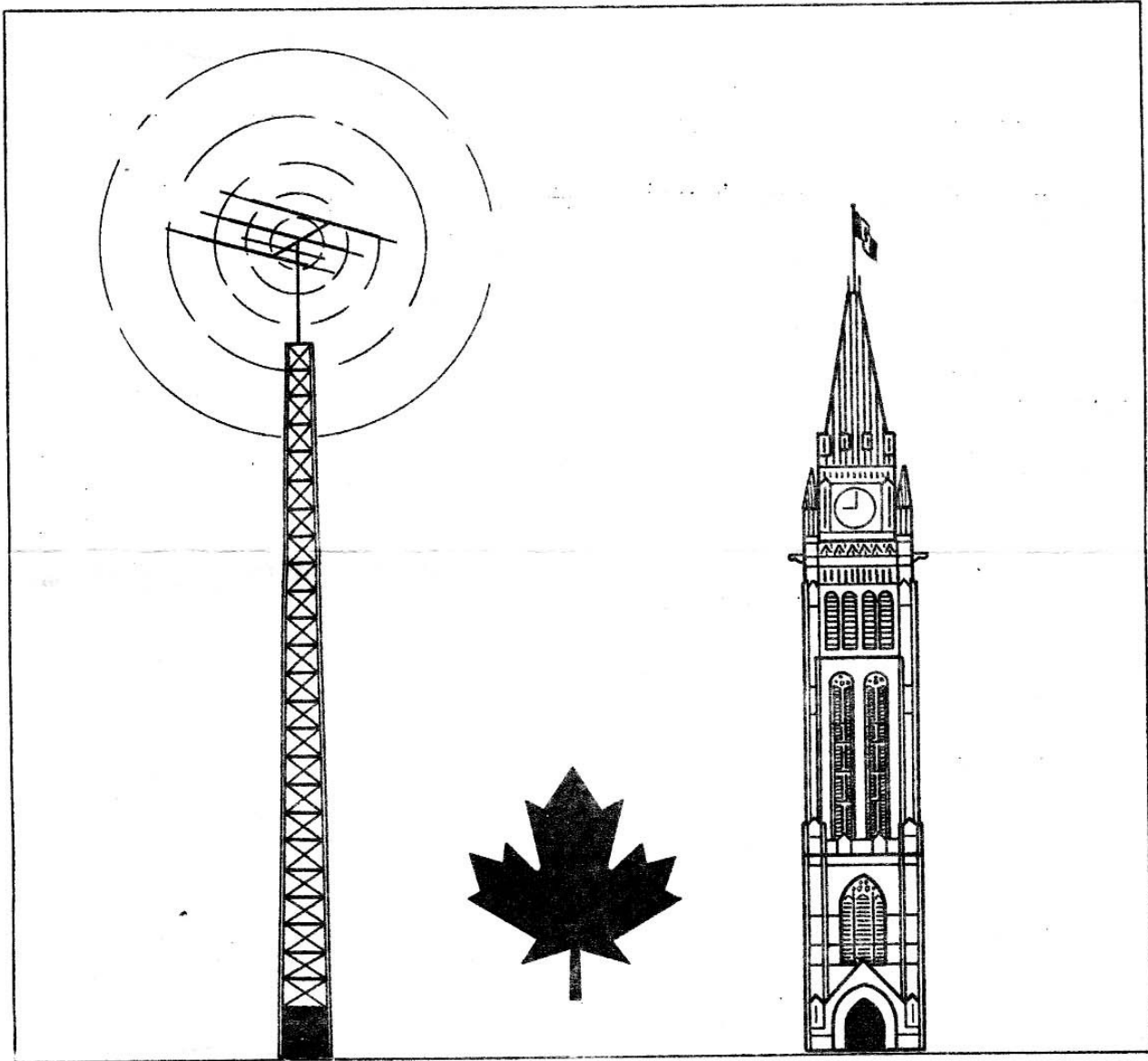


SUMMER 83
105/SEP

GROUNDWAVE



Club Call VE3RC Repeater VE2CRA



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THE OTTAWA AMATEUR RADIO CLUB, Inc. 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 at 2000 hours on the Club repeater VE2CRA (146.34/.94) to pass traffic and to make announcements of interest to Amateurs in the Ottawa regional area.

THE SWAP NET, a service of the Ottawa Valley Mobile Radio Club, Inc., is repeated on the Capital City Net and is conducted by Ed Morgan VE3GX. To list items and make enquiries, call Ed at 733-1721.

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

The OARC EXECUTIVE normally meets on the second Wednesday of each month in the Board Room of CFRA, 150 Isabella St., OTTAWA at 1930 hours. Contact the President to confirm the date of the next meeting.

RENEW YOUR CARF AND CRRL MEMBERSHIPS directly with these organizations, as the club no longer provides this service to members.

DEADLINE FOR COPY is the first Wednesday of each month.

REGULAR MEETINGS of the OARC, Inc. are held on the first Wednesday of each month (except July and August) at the National Research Council Auditorium, 100 Sussex Drive, Ottawa at 2000 hours. A bulletin board is available for posting notices of interest to other members at about 1915 hours. For further details about the next, see Page 5.

SEE YOUR NAME IN PRINT! -- In National and International publications. Write an article for the GROUNDWAVE and watch it travel! Many local articles have been reprinted in Club Bulletins across North America.

MATERIAL PUBLISHED herein does not necessarily represent the official OARC viewpoint. Items may be reprinted by Amateur Radio or similar publications, provided that the proper credit is given to the OARC, Inc.

SAFETY BELTS and TWO METRE RIG are available for loan to Club Members. The two metre rig may be borrowed by members who are hospitalized and the safety belts and pole straps by any member (\$100 refundable deposit is required for the latter). For the belts, contact Paul VE3ICV 820-6643 (west end) or Brian VE3JKZ 523-1535 (east end). Contact the President for the two metre rig.

RADIO AMATEUR CALL BOOKS are available for use of area Amateurs at many of the libraries throughout the region, including downtown and other city libraries, Orleans and Nepean. Enquire at the information desk of your local library for details.

MINUTES OF THE OTTAWA
AMATEUR RADIO CLUB, Inc
 June 1st, 1983

The meeting was called to order at 2002 hours and visitors VE3JLC and VE3EGO were welcomed. It was announced that the Field Day coordinators will be Bob VE3MPG and Bob VE3JDB. The event will take place on June 25th and 26th at the usual location near the allotment gardens on Prince of Wales Drive.

Merv VE3CV reported on plans for the link repeater. The second meeting of the Link Users' Group is scheduled for June 9th and will be attended by a representative of each repeater in the area. The plan is to link with the Blackfly repeater at Bancroft to the network centred in Toronto. The Toronto FM Society has investigated the linking systems in the United States. Of particular interest is the recent teleconferencing net which featured a talk by W1JR on the state of the art of antenna designs. Seventy U.S. repeaters were linked for this experiment. The first net was conducted in March, and the second was scheduled for June 2nd. The next one will be in the autumn and will feature a talk by Barry Goldwater K7GA. Merv also reported (on behalf of the RSO) that affiliated clubs are eligible for RSO awards in the Field Day.

Ray VE3FN, reporting on behalf of the CRRL, announced that a CRRL Repeater Directory is being prepared. He also informed members that the OVMRC Field Day site was featured photographically on a recent cover of QST. The CRRL conducted a survey regarding the request by DOC for an expression of interest in having the amateur community become involved in the examination process. The results indicated that the majority of hams were in favour of such involvement, but few expressed a willingness to do anything themselves. Many felt that licencing and examinations were DOC's responsibility, and that the Department should continue to conduct the exams. Several felt that there should be a thorough review of the

Doug VE3CDC reported on behalf of CARF that a new TRC-24 is to be published in August. Art VE3ZS was disappointed in the low level of interest by the amateur community in regard to the question of amateur involvement in the examination process. Murray VE3PY pointed out that volume of response should not be considered the important criteria and that a few, well thought out replies (such as that carried out by a Burnaby group) would be far more useful. He also suggested that the long list of considerations might have dissuaded many amateurs from commenting.

John VE2VQ reported on behalf of AMSAT that the Shuttle would be arriving in Ottawa on June 8th, 1983. Also, ANIK-C2 was to be launched by a Shuttle on June 18th, 1983. In September, Dr. Garriott W5FLF will be permitted to operate two metre FM from the shuttle for one hour per day. More details on this operation will be available later (possibly in the September GROUNDWAVE). The next AMSAT launch is scheduled at 7:30 am EDT on June 16th, 1983. This is an ESA Arianne launch. AMSAT is now trying to raise funds to pay for launch insurance. Current rates are 5% of the payload cost for NASA launches and 12% for ESA ones.

Raffle prizes are a Call Book, a 1/2 wave two metre whip and a power adapter.

Jerry VE3CDS introduced the main event of the evening which was a slide show and talk by Bob VE3MPG on Field Day.

The meeting adjourned following the talk.

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VIET REDS KILL DXers
 - courtesy Worldradio

DJ4EI was killed by shore battery fire from Vietnam. The boat used by the DXpedition was sunk and survivors escaped by dinghy. DJ3NG died 8 days later from dehydration and exposure. The next day DJ6SI, DF6FK, the boat's captain and his wife were rescued. They

A STORY THAT JUST HAS TO BE TOLD

by Harry Splett VE3GVV

My wife and I were returning from a trip to Chicago in early May-- after the week-end of the big Ham Auction down in Dayton, Ohio. We crossed the border at Sarnia just a couple of hours after the tornado struck and we listened to the clean-up operation on the local repeater. After overnighing with friends in Trenton, we were on the last leg of the journey to Ottawa from Kingston. Alma was driving and I was dozing. We picked up VE2CRA around Lombardy and, when becoming more awake, I could tell two friends of mine, VE3BZW and VE3GBR were yaking away. However, my attempts to raise them with only one watt were to no avail. They left the air, and at Smith Falls I again attempted to break into the busy channel, but "no go". I felt that the two chaps who were monopolizing the channel just weren't listening.

At Carleton Place, I finally broke through and got a brief signal report. I would have liked to make a few more checks (since it was my first so far on the repeater) but didn't have the heart to break up their steady conversation. But this didn't happen, as somebody else who had also been waiting for the frequency finally managed to get through after a couple of sharp interrupts by her. The two operators finally got the message that "somebody else wanted to use the frequency". Being the one who was just listening and not talking, I could tell by the voice that the YL was about five years old. I asked her politely to leave the radio alone until her Daddy came home, whereupon she began to challenge me with each transmission beginning with "Hey, Mister". I played it cool, and after a few minutes, she abruptly went QRT, presumably with her Dad's hand on her collar. Next time, I intend to have a tape recorder to get it down for posterity and a laugh at the annual meeting. We did monitor local hams on CRA and KPG from Ottawa via Kingston to Chicago and back--but it will take more than 1 watt to work more than 10 miles!

CARF NEWS SERVICE

Excerpts from Bulletin 13/83
A special mid-summer bulletin

Keeping a radio station log is no longer required by DOC except for Amateur Class operators who will still need them as well as QSL cards as proof of operation when applying for ten metre and VHF privileges. The change was effective on June 22, 1983. Changes have also been made to make it easier for Amateur Class operators remote from exam centres to obtain authorization for Advanced Class privileges, good for one year. Logs and QSLs are also needed to apply for this permission. Minor changes have also been made to the titles of the various Certificates of Proficiency.

If the DOC follows its newly published agenda for the next few months, changes to the regulations put out for comment in January 1982 will likely come into effect before the end of November. Changes include repeater operation between 29.50 and 29.79 MHz, SSTV in the HF bands, 6 MHz bandwidth for Fast Scan TV and permission to foreign operators whose countries have reciprocal operating arrangements to use the full two metre band. Some power restrictions on 160 metres will be removed with the phase-out of three LORAN stations. The DOC policy with regard to foreign operators will be clarified to ensure that they adhere to frequencies and emissions permitted to them in their own country while still abiding by Canadian regulations.

The FCC is proposing unrestricted repeater operation between 29.0 to 29.7 MHz (from current 29.5-29.7 MHz), which is stirring up a great deal of protest from AMSAT and satellite experimenters because of potential interference with the 29.3-29.5 MHz band used for satellite communication.

DOC is drafting regulations governing RF noise from power lines and appliances, including computers and electronic games. The new regulations will be aimed at preventing the dumping into Canada of equipment which cannot meet Canadian Standards.

-- Continued next page

NEXT MEETING

The next regular meeting of the Ottawa Amateur Radio Club, Inc. will be held on Wednesday, ~~September 7th,~~ 1983 in the National Research Council Auditorium, 100 Sussex Drive, Ottawa at 200 Hours.

The guest speaker and main item of business will be announced in the September edition of the GROUNDWAVE and/or on the Capital City Net.

Before each meeting, the notice board is set up at about 1915 hours to give members an opportunity to seek or give information, to buy or sell articles or to contact others with similar specialty interests. Why don't you use the bulletin board to arrange to exchange amateur radio publications on a loan basis with another ham who receives different magazines? Most of us have access to a photocopier so we could reproduce interesting technical articles at a fraction of the cost of a magazine subscription. Use the Club Bulletin Board to meet someone who has a magazine which appeals to you. Come early anyway, to enjoy an "eyeball" with someone with whom you have had a QSO and would like to meet in person!!

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CARF News-- Continued

The technical requirements for cordless telephones have been issued by DOC as its bulletin TRC-68. These gadgets will not be licensed, although they are radio devices. Meanwhile, in the United States, advertisements are appearing for RF amplifiers for them and the FCC is, according to one source, being petitioned to allow them to have a five mile range. What this will do to 160 m where they are already an interference nuisance, will prove most interesting.

Here is an item of importance to British Columbia operators who are having QRM from cable TV systems. There are forty B.C. cable TV systems up for licence renewal before the Canadian

Radio Television and Telecommunications Commission, starting September 20th. The hearings will be held at the Westwater Red Lion Inn, Victoria B.C. Clubs or individuals wishing to protest or intervene in the renewals should read VE3NR's article in the March 1983 issue of "TCA". The mailing address of the CRTC is OTTAWA, Ontario, K1A 0N2. No street address is required.

Suggested amendments to the DOC exam syllabus, TRC-24, which appeared with the label "DRAFT" in April, were presented to DOC, at its request, by CARF and CRRL on June 30th. Changes to have the exams reflect the hobby nature of Amateur radio rather than a technician test were presented to DOC late last year by CARF, but not all proposals were included in the April draft. It is now expected that a new version will be printed in August in time for the classes starting in the fall. It will be effective February 1st, 1984. The DOC has asked for further consultation on examination questions in September.

The latest Amateur satellite, OSCAR 10, was successfully launched on June 16th by a European Space Agency Arienne. It was boosted to its final elliptical orbit on July 6th. For up-to-date information, tune in to the AMSAT net at 2000 EST on 3.85 MHz.

REPEATER LINKING

-extracted from a letter to VE2CRA from E.J. Gilchrist VE3BHA

At the annual meeting of the Champlain Regional Repeater Association in October, 1982, a motion to provide space for linking equipment at VE3STP was presented and passed. Accordingly the CRRA executive prepared a set of guidelines outlining the conditions.

Although no further input had been received by May 4, 1983, the VE3STP Technical Director and a technical representative of the Link Users Group have established the basic specifications, which include a full duplex 450 MHz repeater at 442.4 in, 447.4 out. The receiver and transmitter have been acquired, and negotiations for a duplexer are underway.

A HOMEMADE NUT STARTER

by Don Lum, WA6ICW

For starting those nuts in the hard to reach areas, try making yourself a nut starter out of shrink tubing.

This can be done by selecting a piece of shrink tubing with a diameter slightly greater than the nut and cut long enough to make the reach.

Place the nut on the table and the tubing over it and perpendicular to the table. Now, with the use of a heat gun (or hair drier), shrink this end so that the tubing forms a socket for the nut. You will find that there is just enough friction to hold the nut in place. After a few threads have started into the nut, pull the tubing to remove it and it is now ready to be used again.

de LERC ARC Biletin
via Rochester RaRa Rag

CODE PRACTICE

(Some thoughts by Dave, VE3KLX
Vice-President of the Ottawa Valley
Mobile Radio Club)

I guess any of you who use the code practice on VE3TWO have noticed some changes. First of all the text is fresh every week. No more will you have to wonder if you are really copying 20 WPM or whether it's just that you have memorized it. There are still some bugs though. First of all, I am still recording the practice on tape and then playing the tape over the air. The trouble is that the recorder seems to be bothered by RF. The alternative is to interfacr the code generator, an Apple 2 Plus; directly into the microphone circuit of the radio. To do this, though, I need to be able to store an hours worth of text on the computer. I am afraid that can't be done very well without a disk drive. So the plan is to purchase a disk drive in mid-May. When I have done that the code should be cleaned right up in terms of quality

Once the quality problem is settled I plan to re-structure the the whole code practice session on Wednesday and Friday nights. We will probably start right at 7 PM and go through until 7:55 on both Wednesday and Friday nights. We will no doubt start at high speed and work down to slower speed. Wednesday night will be for the slower speeds and Friday night will be for the faster speeds. Any changes will be announced on the Wise Owl and I will also mention them in my article in the Rambler. If all goes as planned, I amy be able to offer a qualifying run much like WIAW and provide certification.

de OVMRC RAMBLER

NOTE: For an update check in with KLX or ask around on TWO

ONE MORE FROM MURPHY

The probability of someone watching you is proportional to the stupidity of your action

de Burlington Printed Circuit

RESCUE AT SEA-SATELLITES AND HAMS
by Ferg, VE3LVO

The February meeting in Oakville and the talk by Alistair Pedersen of the DOC about SARSAT prompted several memories regarding near misses at sea and Ham's involvement.

In the mid-sixties I was invited to join in an ad hoc net with G3TJY David and G3RDX Bob in maintaining regular contact with yacht Agysimba, a Cal36 owned by an enterprising American couple, John W6FRU and his wife Nancy Hutchison. With their harmonics grown and gone, John retired from his high-powered position and they set out from Newport Beach California for a westward circumnavigation of spaceship Earth. During the progress of their voyage we kept irregular contact with them, enjoying greater regularity as they approached the Red Sea and Suez.

As reliability and frequency of QSOs increased, the sked attracted

not only other yachtsmen but hometown hams and interested land stations. The sked became a net with G3TJY, G3RDX, G8OS, Percy 8P6BG, Bill in the embassy in Rabat, CN4CW, and several other stalwarts. Traffic grew so that by the mid-seventies we were forced to limit our interests to those yachts only between Suez and Panama, Iceland and Ascension Island. At these limits, sailor hams were handed off to other maritime nets who assumed responsibility for neighboring areas.

All sorts of traffic was passed. It was not unusual to follow a solo skipper on a nonstop from Falmouth to Sao Paulo, or another from Southampton to the Gallapagos on a daily basis.

The most recent event is the British Oxygen Co. single handed, round-the-world yacht race still in progress at the time of our February meeting. The race starts and ends at Newport, Rhode Island. During the Sydney-Rio leg, Sail No. 10, Jacques de Roux of France sustained a 360° rollover which snapped the mast and holed the hull of his 43 foot cutter. His position was 55½ South by 126½ West, a latitude infamous for vicious winds and giant seas.

Jacques had the Argos transponder aboard, a device which answers the French tracking satellite's overhead query with a positioning signal which Argos sends to its earth station. As Jacques contemplated chances of survival and set about pumping out the hull to delay the inevitable sinking, he pushed the little red button on his transponder which alerted the French to a distress signal from his position.

The satellite authorities alerted WALDRB Bob at Race Control, Newport who contacted G3TJY on the UK net. David passed the message to ZL4JO at the southern tip of New Zealand who in turn alerted Richard OD5W, a competitor, and in a 24 hour watch directed Richard to Jacques.

Jacques, meanwhile, unaware of

of this activity had been pumping continuously and had only 4 inches of airspace under his deck when Richard appeared. Shortly after, his transponder signal disappeared—the ominous end to his boat. Jacques was subsequently transferred to a French destroyer dispatched from Pitcairn Island and Richard continued for Rio.

When the various aspects of the rescue are considered, one is tempted to wonder at the tenuousness of radio contacts which effected it. The Race authorities were foresighted in requiring an Argos transponder aboard all competing yachts but consider this: had not G3TJY started, nurtured, and sustained the UK net, had he not maintained his station sufficiently to provide contact halfway 'round the globe with ZL4JO, had not an amazing six of the sixteen competitors been hams, had not WALDRB not been affiliated with Race Control, and had Richard's TR7 transceiver not been properly installed and maintained then Jacques disappearance would have joined countless others as a statistic in the "South Pacific Triangle" or whatever.

At the time of the sinking of his boat, Jacques was still drying off 1800 miles from the nearest land and the destroyer had a 2000 mile voyage to make!

Doubtless, governments, satellites and technology will eventually replace the need for dedicated hams — far-sighted and skilled but I'll bet Jacques says, "Not yet!"

de PRINTED CIRCUIT
Burlington Amateur Radio
Club Inc.

There are 21 square feet of skin on the average adult, about 15% of body weight. In a square inch of skin you will find 20 blood vessels, 65 hairs and muscles, 78 nerves, 78 sensors for heat, 13 for cold, 160-165 for pressure, 100 sebaceous glands, 650 sweat glands, 1300 nerve endings, and 19,500,000 cells.

de FEEDLINE
Niagara Peninsula ARC

PHASE III-B now OSCAR 10

For listeners on the Amsat Launch information net Saturday June 16 was a day to remember. At 6.30 am the European Space agency launch vehicle "Arienne" carried our latest Amateur Radio Satellite into an elliptical orbit around the equator. "A perfect launch" was the word of the day—so much better than "the launch vehicle is going down" of two years earlier when Phase III-A was dropped into the ocean off South America. However ground observations and telemetry from Oscar 10 were soon to prove that all was not "perfect". The satellite had a reverse spin to that planned, and its sun/earth attitude was all wrong, and as the week went by a slow loss of pressure began to show in the helium tank of the onboard rocket motor required to boost Oscar 10 into its final orbit. Official word from the European Space Agency confirmed that venting oxygen from the final launch stage had caused it to collide with Oscar 10. ESA are making all their learning mistakes at Amateur Radio, s Expense. So instead of one week to the first burn of the onboard rocket motor it took until July 17 to get the Satellite properly positioned. --Once again the familiar countdown to "ignition" for the 107 second firing. Initial indications were that all went well, but when those listening to the satellite beacon did not lose the telemetry until 15 minutes later than the planned time they knew something was wrong. Analysis of telemetry showed that the rocket motor had burned for 190 seconds instead of the planned 107, a result of two wires having been interchanged in the firing circuit of the satellite. Fortunately the resulting orbit was close to that desired. An attempt to improve the orbit failed when a second firing of the onboard rocket on July 25 was unsuccessful due to the low pressure in the helium tank.

Despite all misadventures we now have an Amateur satellite that will last from five to ten years; that will be hanging in the sky for 5 to 7 hours each day; that has a bandwidth of 124 kilohertz on two metres (uplink on 70 centimetres), and that is accessible from half of the world at one time. See you on Oscar 10 around 145.900 Mhz.

THE JOE NORTON FUND FOR BEGINNING AMATEURS.

The family of the late Joe Norton (VE3PN) has donated much of Joe's gear to the club to be used to help beginners get set up in Amateur Radio. Your executive have decided to sell this equipment and invest the money with the yearly proceeds being used to help a beginning amateur set up his station. The following equipment (all in mint condition) is for sale with written bids on items being accepted by the club secretary up to September 30, 1983. Sorry, no phone calls, and the usual caveat of not necessarily selling to the lowest bidder as we will hold the equipment until we get a fair price.

(1) Barker & Williamson L-1001A Grounded Grid Linear Amplifier (Pair 813's) with extra heavy duty power supply, in 4 foot rack on castors. (2) Johnson Viking Model 250-30-3 1 Kw Matchbox with directional coupler (use with (1)). (3) Drake L4B Linear amplifier (pair of 3-500Z) 2000 Watts PEP/1000W cw. Power supply. (4) Drake MN-2000 Matching network—built in fwd & refl power meter. 2000 W PEP. Used with (3). (5) Johnson Viking 250-23-3 275 watt Matchbox antenna coupler with directional coupler. (6) KW 109 Supermatch ant. matching unit—1 kw PEP. Built in dummy load & swr/pwr meter. (7) Heathkit SB-220 Linear Amplifier (pair 3-500Z) self contained pwr supply, 2000 W. PEP. (8) Yaesu FT-221R 2 metre all mode base station. (9) Robot Model 400 Slow scan TV scan convertor. (10) Yaesu FT-101E HF transceiver 10-160 metres. (11) Collins 75S-3B Receiver HF. (12) Collins 32S-3 transmitter & power supply. HF. (13) Heathkit SB 610 Monitor Scope. (14) Kenwood Twins-R599D receiver & T 599D transmitter HF. (Just like the one John Henry won at the RSO convention in 1979)

Written bids to : Secretary, Ottawa Amateur Radio Club
Post Office Box 8873
Ottawa, Ont
K1G 3J2

RSO CONVENTION 1983

Reserve the weekend of September 23rd 1983 for the annual RSO Convention to be held at the Inn on the Park, TORONTO, Ontario. The Inn on the Park is situated near the Ontario Science Centre on a site which includes 500 acres of beautiful parkland. Enjoy swimming, racquet sports and choose from six restaurants. There are walking trails nearby and registrants may make use of complementary bicycles. The technical programme is still being developed. At present there are talks scheduled on a South Pacific DX-pedition, AMSAT Phase III, other OSCAR activities, interfacing home computers to the Ham shack and computer controlled computers.

Social activities include a Friday night "eyeball" session. No formal activities are planned for this event, but a cash bar will be available. Saturday night will be the social highlight, with a banquet featuring good food, music and dancing. There will be a special Ladies program, but the details have not been announced. Registrants to the convention will be able to purchase admission tickets to the Ontario Science Centre at a 20% discount. Talk-in will be provided on two metres by Phil Johnson VE3APZ. For advance registration, send the following information to:

The Radio Society of Ontario, Inc.
P.O. Box 246
Port Credit Postal Station
MISSISSAUGA, Ontario
L5G 4L8

Number of Registrants (@\$7.00 advance registration)	_____	= \$	_____
No. Ladies Registrations (@\$2.00)	_____	= \$	_____
No. Banquet Tickets (@\$25.00)	_____	= \$	_____
TOTAL		\$	_____

Payment may be made by cash, cheque or Money Order, or you may pay by VISA. Include

VISA Number _____ Expiry Date _____

Signature _____

There will be draws for numerous smaller prizes during the day, Saturday with the major prize draw at the banquet. Ladies registrants will be eligible for a special prize draw. Registration at the door will be \$8.00.

To join the RSO add the appropriate fee to the total above and include it with your registration. Regular membership fees for full member (holder of amateur certificate or licence and resident of Ontario) is \$15 for one year, \$27 for 2 years, \$35 for three years and \$200 for Life Membership (must have VE3 Call for latter). Associate membership for up to three years is at the same rates and is open to anyone (non voting). Any number of members of the same household may join the RSO for an additional \$3.00 per person per year. If you wish to join the RSO, include your Call and class of membership desired. In registering for the Convention be sure to include your Name _____ Call _____ and Postal Address _____

Enjoy the Convention, and remember, in 1984 it will be held at the new Weston Hotel in OTTAWA.

THE OTTAWA AMATEUR RADIO CLUB, Inc.
P.O. Box 8873
OTTAWA, Ontario, Canada
K1G 3J2



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