Ottawa Amateur Radio Club

Groundwave

P.O. Box 8873, Ottawa, Ontario, Canada, K1G 3J2

Check out our Web Page: ***www.oarc.net***

November 2006

Don't forget, membership renewals are due now. A membership renewal form is included in this newsletter. Mail it in or bring it to the November 11 meeting.

Joe Norton applications are due by November 1.

Be sure to sign up for your FREE OARC club name badge. See the article on page 7.

Check out mk's words for the upcoming club project.

Due to its success last year, Trivia Night is again planned for the December club meeting. Janice Neelands is coordinating.

The title of the November meeting presentation at the OARC by Dave Conn, VE3KL, will be "Coils Chokes and All That Stuff" See you there.

Ian Jeffrey, VE3IGJ

NOVEMBER MEETING 7:30 pm, November 8th
in the Honeywell Room at Ottawa City Hall

In This Issue....

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Groundwave

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Articles may be submitted for use in this publication provided that they portray events or activities that promote Amateur Radio. Letters and comments are also welcome. Submissions may be made by mail addressed to the Editor care of the OARC, or by e-mail to "ve3igj@rac.ca". Deadline for submissions occurs three days after the regular monthly meeting of the OARC.

Please support your local radio organisations. They support you!

Club Information

The Ottawa Amateur Radio Club Inc. is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area and to the advancement and achievement of club members.

Regular Meetings of the OARC Inc. are held on the second Wednesday of each month (except July and August) in the Honeywell Room (2nd floor of the Old Teacher's College) of Ottawa City Hall (formerly Regional Municipality of Ottawa Carleton Headquarters) on Lisgar Street. Meetings commence at approximately 19:30 hours. Further details about each meeting is elsewhere in this publication.

Executive Meetings of the OARC Inc. are normally held on the first Wednesday of each month at 19:30 hours. Contact the President to confirm the date, time and place of the next meeting.

The CAPITAL CITY FM Net meets every Monday at 20:00 hours on the club repeater **VE2CRA** to pass traffic and to make announcements of interest to Amateurs in the National Capital Region.

The SWAP Net is a service provided and conducted by Ed Seib, VA3ES. This feature appears on theCapital City FM Net. To list items and make inquiries, call Ed at 613-738 8924 or e-mail him at va3es@rac.ca. Also available on the web: http://www.igs.net/~swap.

The POT-HOLE Net is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club and is conducted every Sunday at 10:00 hours on **3.760 MHz**. All amateurs are welcome to check in.

The POT-LID CW Net is an informal slow-speed **CW** net sponsored and conducted by Ed Morgan, VE3GX, and meets every Sunday, except during July and August, at 11:00 hours on **3.620** MHz, to promote interest in CW and CW procedures.

The QCWA CHAPTER 70 Net meets every Thursday evening at 20:00 hours on repeater VE3TWO **147.300+.** You do not have to be a QCWA member to participate.

The Ottawa Valley VHF/UHF SSB Net is sponsored by the West Carleton ARC. Look for it every Tuesday night (except the first Tuesday of the month) around 21:00 on **144.250,** (roll calls after net on 50.150, 432.150, 222.150, and 1296.100.) Horizontal polarization is preferred.

VE3TEN

Tuning in the beacon so that it makes sense requires you tune to **28.175** on **cw** and read the tone that is there . The spaces between the elements are the higher tone. If that doesn't work, tune to **28.175.28** on **lower sideband** for better results.

Voice (VHF) 146.94/146.34 100Hz output tone
(UHF) 443.300/448.300

VE3TVA Amateur Fast Scan Television Repeater
Video/audio beacon & input 439.25 MHz (audio sub. 443.75)
Video/Audio output 914 MHz (FM)

IRLP Node 2040 146.94/146.34 (VE2CRA/VE3RC)
(Code 411 for info) (Code 204 for activity)
(Code 88 for time)
For further information please contact the Repeater Chair.

Note: The IRLP link is not connected to ECHOLINK. Please do not try to connect using the alpha keys on your keypad. It just confuses the operator.

Note: The IRLP link is disabled during the Capital City Net each Monday. It is disabled from 2000 to 2145 Mondays except for May to August when the link is disabled from 2000 to 2020.

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October Minutes

Minutes of the Ottawa Amateur Radio Club meeting October 11, 2006. Meeting called to order at 19:36. One guest was recognized: Roger Swickis, VA7MG (ex VE3BZR). The minutes of the September meeting were approved. The president noted that we still need a secretary, and urged anyone even slightly interested to step forward. It was noted that we have one candidate for the Joe Norton award.

Greg, VE3YTZ spoke about the club badge program. Members in good standing by the December meeting may receive a club membership badge at no further cost by notifying the membership chair that they want one, and providing him with the name and callsign to be printed on the badge. Badges will be about 2x3 inches and white with either black or red text (to be determined). They will have a version of the club logo on them. Members will also have the ability to purchase, at cost, duplicate or replacement badges. These "second" badges are expected to cost between $5.50 and 7.50 each. There will be one badge order per year, after the December meeting, for distribution at the January meeting. The ability to provide a free badge to each member who wants one is due to the success of the Hamfest last month. The deadline for orders is the end of the December 13th meeting.

Dave VE3AAQ (VO1AU, ex VE2ZP, etc.) announced that he is running for RAC Director for this region, and asked for the support of those present.

Peter VE3BQP spoke about "The Role of Amateur Radio in Emergency Communications". After introducing EMRG/Ottawa ARES, he spoke about what people, especially hams visualize when they are asked about emergency communications. He said they tend to think about: operating HF from home, field day, quasi military operation, tents, generators, message forms etc., government, the military and police support, saving lives. This mindset is a holdover from the 60's to the 80's when there was one black rotary phone in each house, connected to the only phone company, without much diversity in long distance telecommunication routes. Emergency response meant responding after a nuclear attack. Wireless was HF radio and not much else.

In the current era, there are multiple phone companies, redundant copper, fibre, microwave and satellite links for cheap, redundant long haul telecommunications. Emergency response is mostly a response to natural disasters, and other events can be handled using the disaster paradigm. Another change from the 60's is that people are less self reliant, and now expect the government to take care of them in an emergency.

The role of amateur radio in emergencies has changed a lot, while views about it haven't kept up. Amateurs still think they "save lives". While they may use radio to call in life savers, so do people with pagers, CBs, FRS and marine radios. The life saving is done by the people that are called, not the person doing the calling, whoever it is. When hams listen in on communications from a disaster area, what they hear is the HF response by hams. This, while most easily audible outside the disaster area, is really the smallest part of the response. Local VHF/UHF response by hams is much larger but unheard outside the area. Both of these are dwarfed by the response of commercial interests, such as satellite communications providers, and cellular telephone companies, who responded to hurricane Katrina with thousands of units. All this was inaudible to the amateur listener away from the site.

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Dates to Remember

2006	
Sep. 2	OARC Hamfest and RAC Forum
Sep. 30	Membership Renewal Deadline
Nov. 1	Joe Norton Award Subm. Due
Dec. 30	RAC Winter Contest
2007	
Feb. 10,11	Canada Ski Marathon
Apr. 11	Homebrew Night
Jun. 13	OARC AGM and Elections
Jun. 23,24	Field Day
Jul. 1	RAC Canada Day Contest

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Today the emergency role is local communications for humanitarian relief. Hams on VHF/UHF supply communications for local groups providing food, checking on people, looking for anyone left behind in the evacuation. Groups doing these sorts of work have no provision for emergency communications and have no budget to attract the commercial marketplace into supplying communications for them.

Amateurs have to note, however, that amateur repeaters also fail. Even if owned by clubs, they are often the work of one person. They have failure prone antennas, and often have poor or no backup power. Equipment used for day to day hamming may not be suitable to emergency communications. If we are not up to standard, we will not be patted on the head, thanked and sent to a corner to play with our toys. Amateurs tend to build systems that are interesting to them and not necessarily useful for those who need our help. That is why EMRG is now building repeaters, and siting them where the city is likely to need our assistance. That is also why EMRG is working on solutions for getting signals into and out of sealed buildings. (A classic example of a problem that only occurs to amateurs once an emergency occurs.)

Our most valuable resource is licensed amateurs, rather than equipment. In an emergency, we can always find hardware, but people who understand how to deploy and use it will be in short supply. We have to get out of the NTS mindset, where messages stay in the NTS system from origination to destination. In an emergency, traffic should go via amateur radio only as far as it needs to, to get to the commercial networks.
Similarly, welfare traffic should go in an organized manner only from the disaster area to a pre-existing (Red Cross) system, rather than going through one-on-one, ad hoc, random enquiries.

Amateur radio emergency communications is becoming fragmented, with the WRRL, Winlink groups and similar splinters breaking away from ARRL/RAC/ ARES mould. One radio by itself is useless, as it takes TWO to communicate. A team that trains together is likely to be better than a pick up team. They might even bring the right gear to the game.

Questions from the floor:

How do you see non ARES hams helping the ARES core group in an emergency?
Have a licence and show up. If your radio is to pretty to take outside, buy a VHF rig that you won't mind getting dirty. Understand what EMRG is and who they are and how they work. Get involved in some aspect of amateur radio, join RAC. Understand that we don't attempt to replace the city's big radio network, and don't report to the big smoking hole. We don't have the resources to begin to do that. Be flexible in your response. The more different things you can do the more likely you are to be of assistance.

What interchange do you have with neighbouring ARES groups?
Twice a year the ECs from Ottawa and surrounding groups get together to decide on topics of mutual interest, such as who to call in each area for mutual aid, what information will be required of incoming amateurs, what the is the procedure for response.

What exactly will EMRG members be doing in an emergency?
Typically we will be providing communications between the shelters and their managers and the EOC. The city's social services department responds to emergencies with cell phones. They have no communications capability other than us when a disaster causes the telephone networks to overload.

What particular projects would you like to see worked on?
Solutions to the sealed building problem, where you can't open a window or leave a door open to let coax out. OARC sponsored work at Algonquin College on a solution to that problem. Headphone splitter, to allow operator and logger to both listen to the same radio. Robust repeaters with coverage tailored to the needs of the city, rather than where sites are convenient. Portable repeaters, with the capability to link back to one of the major repeat-

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mk's Words

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ers. More repeaters, to allow them to be used for smaller community areas, neighbourhood patrols, etc. DC power solutions, such as a gel cell charger that will quickly recharge a deeply discharged gel cell, and then keep it at a float charge, without requiring operator intervention. Portable dual band antennas and mounts that can be deployed quickly and under a variety of situations.

Hardware Project Mike VE3FFK spoke about the club project. There are 4 choices.

- A HF project (receiver, QRP transceiver, DSP/Sound card based receiver)
- A VHF project (APRS interface)
- A Computer project (rig to computer interface, similar to rig blaster)
- A "Miscellaneous" project (gel cell charger/ power pole distribution network, etc)

By a show of hands interest was HF-6, VHF-2, Computer-4, Misc-14. Based on the show of hands, Mike will research the DC project and come back with a specific proposal.

Haves and Wants: Mike VE3FFK advised there is a car rally this weekend (Oct 14,15) needing operators. Alan VE3ZTU volunteered.

Coffee, rag chew and 50-50 ticket sales. 50-50 draw was won by Wally VE3CBE. Meeting adjourned around 21:00.

It was great to see how many hands went up at the last meeting when I asked how many were interested in a hardware project. Since the majority of the hands indicated that a DC, battery charger/ PowerPole distribution project was the favorite, I will start digging into what kits are available. I'm guessing that the charger part will be out there somewhere, probably in the form of a printed circuit board and a baggie of parts. That still leaves the transformer/rectifier, cabinet, and distribution parts of the thing to come up with, along with any metering or switching arrangements. If you want to drop a battery into the cabinet as well, there is more head scratching to do. I'm going to do the research between now and the November meeting, so if you come across any promising leads, please share them. I expect that everyone will want something a bit different, built around the core idea, so keep your eyes open for things like cases, switches, circuit breakers and most of all, ideas.

I'm still learning about operating under "interesting" conditions. For example at an overnight rally this weekend, the plan was to operate net control from an ARES trailer usually stored at the Perth OPP detachment. The trailer has radios installed, a generator with battery back up and some pretty effective antennas. It also has a previously undetected problem with it's trailer lights, so it was suddenly unavailable. Being a pessimist by habit, and a heavy packer, it wasn't too difficult to reconfigure on the fly. All I had to do was pull two radios, two masts and antennas out of the back pack and start setting up. Of course, there was nothing to plug the toys into, but that's what teamwork is for. Another equally heavy packer had brought enough DC to run the show for the weekend. Since those of us who play these games all seem to have adopted the power pole as our standard DC connector, the whole thing went together as well as if it had come out of the ham shack of of one person, and not several. Now we only had to deal with broken cars, radios, and other toys- and that was only among the organizers. The com-

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petitors had their own challenges, but that is a story for their newsletter. Bottom line is that you don't have to wait for an out of season snow storm to practice being useful to people.

Speaking of practice, the Emergency Preparedness College is looking for more amateur radio operators to add to their roster of volunteers. They offer courses in running an emergency operations centre, and managing the site of an emergency. Typically they run one or two of these a month. The usual students are municipal officials and those who normally manage first responders, like fire chiefs or commanders from all over the country. Part of the courses involve working through simulated emergencies, which is where we come in. Amateurs are located in the emergency operations centre, the incident site command centre and in a room used to "run" the simulation. We pass messages to and from these sites as we would in a real emergency. A more important role is to get the students used to the idea of working with us "amateur" people. That way, when they find themselves in a crisis, they are comfortable and familiar with hams in their midst, and know what we do and why we are there.

The courses usually require a day and a half of our time, either on Wednesday and Thursday or Thursday and Friday. Each new amateur is brought in as an "understudy", so you aren't thrown into the deep end right away. They also provide lunch, and pay mileage if you need it. (I figure their lunch is worth more than my bus tickets). Anyway, if you can help, or have questions, let me know and I'll pass your info along to the College. If you want to come out and observe for a half a day, to see for yourself what it's all about, that can be arranged too. They especially need francophone or bilingual amateurs for a course they are doing in French on December 6 and 7.

I'm at the bottom of the page and haven't even mentioned Joe Norton or the EMRG meet Sep 30, or this falls antenna follies. Maybe next time. BCNU

73.. mk VE3FFK

Brainteaser

Last month's puzzle:

What is the resistance measured between adjacent nodes of an infinite square mesh of one-ohm resistors?

Congratulations to Bryan Campbell who got the right answer, 1/2 ohm. With some help from Brice Wightman, VA2BW, I found the solution as follows.

Place a current source at any node of the mesh and inject 1 amp. This current will flow out of the edges of the mesh at infinity. From symmetry, the current divides equally among the four wires connected to the node. So there is 1/4 amp in each of these wires and a voltage drop of 1/4 volt to the next node in any direction. Now, remove the current source and extract 1 amp from a node adjacent to the first node. This produces 1/4 volt drop in the same direction as the first drop and 1/4 amp in each leg. Now superpose these two current sources. This gives a total current between the two nodes of 1/4 + 1/4 or 1/2 amp so the potential difference between the two nodes is 1/2 amp * 1 ohm = 1/2 volt. Therefore, the resistance between to adjacent nodes is V/I or 1/2 volt / 1 amp = 1/2 ohm.

This month's puzzle:

Here's an old chestnut. Consider two capacitors of capacitance C each, one is charged to a voltage V and the other is uncharged. The stored energy in a capacitor is $(1/2)*C*V^2$. Now connect the two capacitors together. The charge divides equally between the two and therefore there is a voltage V/2 across each. The total stored energy in the system is now $2*(1/2*(C*(V/2)^2) = (1/4)*C*V^2$. What happened to the other half of the initial stored energy?

Thanks to Brice for this one as well.

OARC Name Badges

Get your OARC name badge free!

The Executive of the OARC is pleased to announce the 2006-07 Name Badge Program.

All members who are in good standing on or before December 13, 2006 will be eligible for a free name badge. In addition to displaying your first name and call sign, the pin-on badge will show the club logo and name, and will measure approximately 3x2 inches. See below for the approximate design.

Members who are interested in taking advantage of this opportunity must contact our Membership Chair, Gord Holmes (VA3GFH), either by e-mail (va3gfh@rac.ca), by phone (613-828-8478), or by a sign-up sheet that he will have available at the October, November and December meetings. You must provide Gord with the spelling of your first name and with the call sign you would like to display. Only members who proactively contact Gord will get a badge.

If anyone wishes a second or a replacement badge, they can get it for the Club's cost which will be approximately $5.50 plus tax this year only. In future years, due to the anticipated smaller numbers of orders, the cost will be approximately $7.50 each plus tax. (It has not yet been decided whether badges will be free to new members in future years.)

We hope to have the 2006-07 badges ready for distribution at the January meeting. The free badges were made possible this year due to the success of the Hamfest.

Remember you must have paid your 2006-07 membership fee on or before December 13, 2006 AND you must provide Gord with your information in order to be eligible for a free badge.

Wear your OARC badge proudly!

Greg Danylchenko, VE3YTZ

This space is available for your article.

Joe Norton Award

ENTRY INFORMATION

The **Ottawa Amateur Radio Club Inc.** (OARC) annually awards the Joe Norton Trust Award for the advancement of amateur radio. The amount of this award is $500 and a wall plaque.

ELIGIBILITY

To be eligible, a candidate must:

1. Be a resident of the National Capital Region as defined by the official federal government map.
2. Have received a Certificate of Proficiency in radio from Industry Canada during the period June 1, 2004 to June 1, 2006.
3. Send a written submission of no less than 600 words and no more than 900 words to the executive of the OARC setting out his or her interests, achievements and plans to contribute to the advancement of amateur radio.
4. Present him/herself for an interview if so requested by the judges.

RULES

1. Entries must be received on or before 17:00 local time on November 1, 2006. Entries received after that date will not be considered.
2. The OARC will send an acknowledgment in writing upon receipt of an application.
3. A panel of judges appointed by the executive of the OARC will evaluate all entries.
4. Finalists may be interviewed by members of the executive of the OARC, the panel of judges, or both.
5. Submissions will not be returned.
6. If the judges do not select a candidate in any year, no award shall be made in that year and the monies shall return to the trust fund.
7. All decisions of the executive of the OARC are final.
8. The winner will be notified on or before November 23rd, 2005.
9. The winner will inform the OARC of his or her acceptance of the award no later than November 30th, 2005.
10. The award presentation will be made during the regular meeting of the OARC in December.
11. The winner agrees to have his/her name, photograph, and address published in club bulletins, trade papers, and magazines, and on the airwaves.

ENTRIES

Send your entry, to be received no later than 17:00 on November 1, 2006 by mail to:

Joe Norton Trust Award
Ottawa Amateur Radio Club Inc.
Box 8873
Ottawa, ON
K1G 3J2

Entries may also be e-mailed, in plain ASCII text only. No word processor formatting, no word processor attachments allowed to executive@oarc.net. Be certain to include your full name, address, call sign, and your e-mail address if you have one, in your submission. Both mail boxes, paper and electronic, will be cleared at 17:00 on the closing date.

Aviation Humour

There is a story about the military pilot calling for a priority landing because his single-engine jet fighter was running “a bit peaked”.

Air traffic control told the fighter jock that he was number two behind a B-52 that had one engine shut down. “Ah” the pilot remarked, “the dreaded seven-engine approach”.

MEMBERSHIP APPLICATION / RENEWAL

Ottawa Amateur Radio Club, Inc.
Box 8873 Ottawa, Ontario K1G 3J2

O Renewal **O** New **O** New Ham (FREE if licensed in current membership year)
O Single ($25, $20 after Feb. 1) **O** Family ($30) **O** Junior ($15)
O Emailed PDF Copy **O** Mailed Copy ***Add $5.00 for mailed copy of Groundwave***.

(**Please note**: membership year is September 1 to August 31.)

Family Name:_____ First Name/Initials: _____

Address: _____

City: _____ Prov: _____ Postal Code: _____

Home Phone: _____ Work Phone: _____ Ext _____

E-mail address: _____@_____ (***For Groundwave mailing***)

Callsign(s): |_____| |_____| |_____| Fax: _____
Qualifications: **O** Basic **O** Advanced **O** Grandfathered
Year Licenced: _____

Other Family Members

Name: _____ Callsign(s): |_____| |_____| |_____|
Qualifications: **O** Basic **O** Advanced **O** Grandfathered
Year Licenced: _____

Name: _____ Callsign(s): |_____| |_____| |_____|
Qualifications: **O** Basic **O** Advanced **O** Grandfathered
Year Licenced: _____

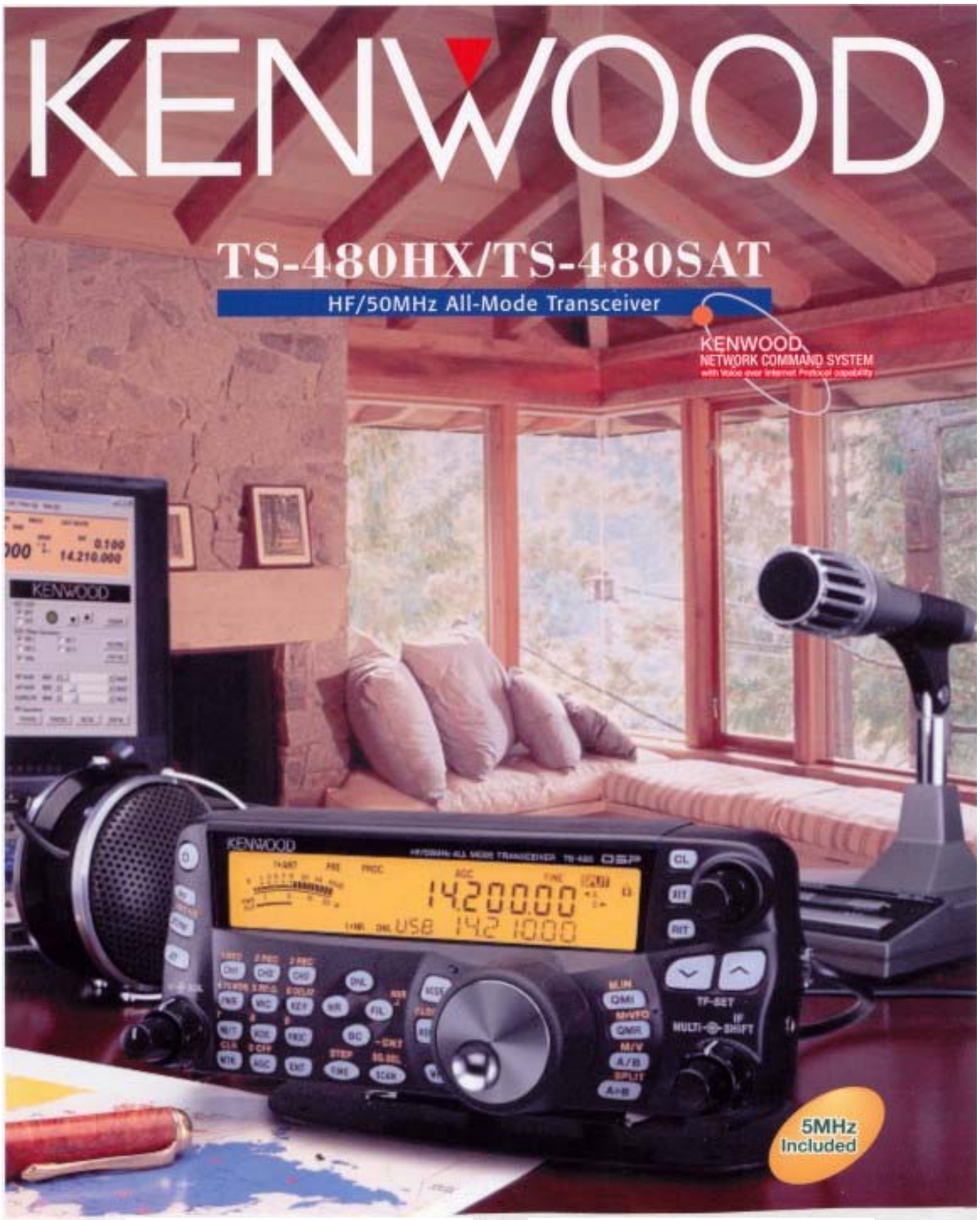
Name: _____ Callsign(s): |_____| |_____| |_____|
Qualifications: **O** Basic **O** Advanced **O** Grandfathered
Year Licenced: _____

Interests: _____

_____

Comments/Suggestions: _____

_____



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