

Kilowatter

The voice of the KW Amateur Radio Club

November 2007

Since 1922

Kitchener-Waterloo Amateur Radio Club

133 Weber St. N. Suite #3-138

Waterloo, Ontario

N2J 3G9

EDITOR: Gordon Hayward VE3EOS

PHONE: 744-7205

email: ve3eos@rac.ca

Web site: <http://www.kwarc.org>

MONDAY'S MEETING

Date: Monday November 5th, 2007

Time: 7:30pm

Place: RCAF Wing 404 Club. End of Dutton Dr. Waterloo. Off Weber St. N

Topic: ARES Message Passing Exercise – Larry Gorman, VE3LGN

UPCOMING EVENTS

<p>KWARC Christmas Meeting RCAF Wing 404 Club. Waterloo. Monday, December 3, 2007</p>	<p>Lunch Bunch Christmas Gathering Transylvania Club, Kitchener Second Friday Before Christmas, December 14, 2007</p>
<p>Big Event 30 Flea Market and Hamfest Niagara Peninsula Amateur Radio Club, Inc. Saturday, February 2, 2008 St. Catharines, ON</p>	<p>Burlington Spring Flea Market Saturday, February 23, 2008 Burlington, Ontario</p>
<p>IARC Twelfth Annual Flea Market Iroquois Amateur Radio Club Saturday, April 5, 2008 Iroquois, Ontario</p>	<p>Central Ontario Hamfest & Fleamarket GARC & KWARC Saturday June 7, 2008 Fergus, ON</p>
<p>Field Day Location to be announced June 28/29, 2008</p>	

KWARC Directors 2006-7

President	Dennis Tabbert	VA3DLT	463-9641
Vice President	Ben Sasiela	VE3ST	748-0445
Past President	Bob Pelling	VE3XNB	885-9995
Treasurer	Don Fisher	VE3ESE	578-7328
Secretary	Ken Willmott	VE3MIX	897-1737
Director	Tedd Doda	VE3TJD	513-0377
Director	Gord Hayward	VE3EOS	744-7205

The Executive Committee Chairs

Program	vacant		
Technical	Tedd Doda	VE3TJD	513-0377
Packet	Tedd Doda	VE3TJD	513-0377
Database Mgr	Dave Schwartz	VA3DGS	884-3594
Bulletin Editor	Gord Hayward	VE3EOS	744-7205
Edu. Co-Ord	Ron Gimbel	VE3DBD	584-2009
Chief Examiner	Vern Stroud	VE3RVS	743-9342
Auto Patch	Ben Sasiela	VE3ST	748-0445
ARES Manager	Larry Gorman	VE3LGN	884-6782
CANWARN Mgr.	Ben Sasiela	VE3ST	748-0445
QSL Manager	Gord Gibson	VE3NQQ	893-5148
Inventory	Ben Sasiela	VE3ST	748-0445
Field Day	Gord Hayward	VE3EOS	744-7205
Webmaster	Dennis Tabbert	VA3DLT	463-9641
Bereavement	Marg Cassel	VE3RE	634-5139
Flea Market	Dennis Tabbert	VA3DLT	463-9641
QCWA Rep	Harold Braun	VE3DWH	884-2388

KWARC Owned Repeaters/Nodes

Mode	Call	Freq.	PL	patch	Location
Voice	VE3KSR	146.970	131.8		Baden Hill
Voice	VE3RCK	146.865	131.8		Mannheim
Packet	VE3KSR-0	145.010			Baden Hill
Packet	VE3KWQ	145.090			Waterloo
Voice	VE3IXY	224.340	131.8		Mannheim
IRLP	VE3RBM	444.875	131.8		Mannheim
Echolink	VE3SED	53.370	131.8		Baden Hill
Voice	VE3SED	442.200	131.8		Baden Hill
Special Events		147.510			Kitchener

Other Area Repeaters/Nodes

Mode	Call	Freq.	PL	patch	Location
Voice	VE3ERC	444.700	N		Elmira
Voice	VE3KFM	442.000	Y	open	Kitchener
Voice	VE3RND	145.330	Y		Plattsville
Voice	VE3SWR	146.790	N		Cambridge
IRLP	VE3WFM	147.090	N		Waterloo
Voice	VE3WWW	146.835	N		U of W
Voice	VE3RSS	147.030	N	members	Acton
ULR Link	VE3BHR	447.075	Y		Baden Hill
Voice	VE3RKL	443.850	N		Guelph
Voice	VE3ZMG	145.210	N		Guelph
Packet	VE3VIQ	145.570			Guelph
TCP/IP	VE3MKY	145.570			Guelph
TCP/IP	VE3UOW	145.570			U of W B
Voice	VE3BAY	442.350	Y		Kitchener

[The Pres Sez](#)



This fall in early October I decided to go to Myrtle Beach for relaxing vacation. I had my trusty Streets and Trips hooked up to a GPS, so nothing could go wrong, or could it. Going through Florence was a nightmare as the road was closed due to an accident, plus I didn't realize it was bike week in Myrtle Beach, Have you ever heard 10,000 Harleys revving their engines, so traffic was backed up detouring around the accident.

On the way back home I decided to take a different route and avoid Florence entirely which was a good choice. But eventually I had to rejoin interstate 77 near the Virginia border. Hwy 77 is such a joy to travel on., lots of scenery and a very good highway. There are two tunnels through the mountain on this stretch of highway , but no big deal, just turn on your headlights when in the tunnels. Oh Oh what's this, a traffic jam out in the boonies, miles from civilization. The first tunnel is only a couple miles ahead. and stuck in a traffic jam at 1000 metres. The sign said the tunnel though the mountain was reduced to one lane.

Lets see who is around on vhf. Tune around the band and lo and behold I hit a repeater Gave out my call and got instant response plus severe doubling. Some never heard tell of a va3 call , so had to explain where I was from (Ontario?? Where is that) , and that I was stuck in the traffic jam.

The locals knew all about the problem and asked me if I had a 4 x 4 , I could take a short cut across the mountain (don't think so), think it was made by mountain goats, hi hi! Thanks anyway but I'm pulling a 30 ft trailer. Finally got in the tunnel, and couldn't see any sign of road work till we got to the very end and there was a worker sitting on his tailgate having a coffee.! Wow, miles of traffic tie up for a coffee break. About then I could use a coffee as well!

At least the bands were open and lots of nice local people to chat with. I made several contacts while inching my way along old 77, I guess word gets around when a strange call sign is heard on their local repeater.

This upcoming meeting will be lots of fun, with Larry Gorman giving hands on presentation. I put my hand held in the truck already so I won't forget it!!

Looks like a good turn out is expected, so charge up the old hand held and bring it along.

That's it for this month, hope to see you at the meeting.

Best 73

Dennis Tabbert

VA3DLT

[Kitchener Waterloo Amateur Radio Club](#)

[Meeting Minutes](#)



The meeting was called to order by president Dennis Tabbert, VA3DLT. After welcoming the members, the microphone was passed around for introductions.

Ben, VE3ST introduced Shawn Gartley, VE3PSV from Cambridge. Shawn, a net controller for ONTARS and other nets, spoke about formal traffic handling and the standard message form. This allows messages to be tracked and the net manager to generate statistics about the messages passed. He was helped out by Larry, VE3LGN who told the meeting about the emergency net to be held October 6. He also spoke about the next meeting where we will be doing a message passing exercise.



Shawn Gartley, VE3PSV

Don, VE3ESE built a satellite antenna from Mike's (VE3FAR) instructions from the September meeting. He showed the unit and spoke about the construction details. The parts cost was about \$30 and you can contact Don for more details.

Lynda, VA3LWH provided coffee.

The door prize was won by Peter, VA3PTB.

Harold, VE3DWH, spoke about the upcoming QCWA meeting on October 20 where Bob Rushby, VE3TLA, will speak about digital cinema. Harold also told the meeting about the passing of Tom Atkins, VE3CDM.

Peter, VA3PTB talked about what's happening at Msgr. Doyle High School. VE3EAD is the new call sign for the school. To get the students operating, he asked that if we here a new person on VE3EAD to make the contact and encourage the students. RAC has offered them a Kenwood TS830S HF rig and they are now setting up a vertical antenna for 80 to 10m with the help of Don, VE3ESE and Ben, VE3ST. Don presented Peter with the mounting for the antenna. The club is sponsoring this activity so if you have something they could use, please see Peter. They have 6 new licenced hams so far.



Don, VE3ESE showing Satellite Antenna

Larry reminded the group about the message passing exercise and to bring handhelds with charged batteries.

The motion to adjourn was made by Gord, VE3RGG, seconded by Harold VE3DWH.

Minutes by Gord, VE3EOS.

Kitchener Waterloo Amateur Radio Club

Executive Meeting Minutes

There was no executive meeting in October.

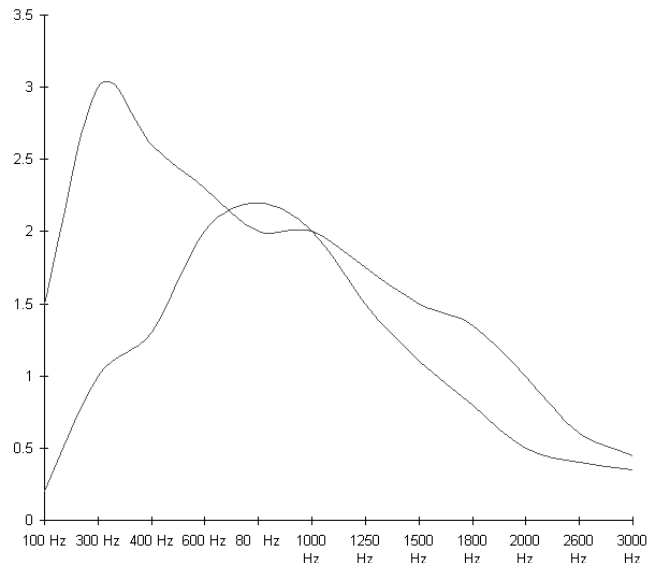
Boatanchor Rehabilitation - Audio Enhancement



In restoring my boatanchor radios, I keep them in more or less original condition, but I'm not above making some modifications. One area that I'll often change is the audio section. There's a big difference between high fidelity audio and communications audio. For hi-fi you want both the treble and bass response to be as good as you can get. This is desirable for listening to international broadcast stations and receiving digital modes.

On the other hand, for voice communications you want only the information carrying part of the voice signal. Low frequency rumble and high frequency hiss should be removed. Most communications receivers are designed for restricted audio. The figure shows the response of commercial transceivers. The figure shows the response of an imported (lower curve) and an American (higher curve) communications receiver. The difference may be to support different languages.

Neither of these has a CTCSS filter. CTCSS is the tone squelch system on repeaters like VE3KSR that more or less eliminates intermodulation and distant co-channel interference. Here the receiver listens for a 'sub-audible' tone to enable the audio. These tones range from 67 to 250 Hz (KSR uses 131.8 Hz). These are audible and appear as a hum, but not at the 60 Hz line frequency. To get rid of these, the receiver audio has even less low end response. A low pass filter kills everything below 300 Hz.

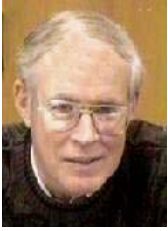


Audio Response (from David Jordan, with permission under GNU Free Documentation Licence)

The modifications that I do are relatively simple. In looking through the schematic, I find the coupling capacitors. The cutoff frequency of an interstage coupling is $1/(2\pi RC)$ where C is the capacitor and R is the grid leak resistor – we are talking tubes here. For bipolar transistors this gets more complicated. Making the capacitor bigger lowers the cutoff frequency giving better bass. For a typical tube, the grid leak is about 470k and the capacitor about 0.002 uF. This gives a low frequency cutoff of 170 Hz. A 0.02 or better a 0.1 uF works well. The cathode bypass capacitor also figures in the low end response. A typical value is 40 uF so I'll use something like 250 uF.

To fix the high end, I look for bypass capacitors. These go from the plate (after the plate resistor) to ground or from the grid to ground. These can be removed. There's also a capacitor across the output transformer. This should be about 0.001 uF. A bigger capacitor will reduce the high frequency response, but if it is too low there is a possibility of high frequency oscillation in the stage. These modifications have even been suggested for a Collins 74A-4!

ARES in Action *Simulated Emergency Training (SET)*



In the October Kilowatt I inserted a reminder for our upcoming **SET** exercise. RAC reminds us that as Amateurs that we should give serious consideration to being prepared to assist in the event of a major emergency situation. All clubs are encouraged to run a simulation each year. Over the past several years the breakdown of sophisticated commercial communication systems (cell phones, land lines) has reinforced the need for a reliable alternative to these easily overloaded systems.

The Provincial Emergency Planning agency has encouraged all Emergency Management groups throughout Ontario to include, wherever possible, Amateur radio operators in their communication planning manuals.

K-W Amateur Radio club is currently included in all of the operating manuals for the cities of Waterloo and Kitchener, as well as the Region.

We might be asked to help people in shelters contact family, as well as to relay important messages between a variety of municipal officials.

On 5 Nov 7:30 PM, at the Wing 404 facility club meeting, we will have the opportunity to practice with simulated messages of actual situations. As you arrive at the greeting desk you will be given a team/group ID card. After a brief info session everyone will go to their assigned Group operating desk where further instructions will be found. A Team has 6 members, consisting of 3 persons in two Groups. Half of each Team will be stationed at the opposite ends of the hall.

The first person in each Group, (numbers One and Four), will be required to record the name, call sign and assigned number of each member of both Groups in their Team. They will be the only persons allowed to visit the desk of the other half of their Team for getting names or for message clarifications.

Each member will have three *simple* tasks, in a rotating sequence, as the exercise progresses: to transmit, to record, and to deliver the radiogram to the "situation" desk. Each team will be assigned its own special 2 meter Call frequency.

The task sheet clearly outlines the procedure to follow. Each member will have a different message to transmit. But before you Transmit your message you are to announce. **"This is an Emergency Simulation Exercise."**

If you have a programmable 2 meter hand-held radio, please bring it to the exercise. If not, don't worry. Hopefully we can manage on a couple of radios per Group. Don't forget to check the **batteries** beforehand. Radiograms, and pencils will be supplied. A plug in headset or **microphone**, would also be an asset. It may get noisy!

Hint: One watt transmit power is plenty!

This team based exercise is a great way to take an active part in an important activity, and to get to use your radio. You will meet and work with other members of the club, and be a part of the action! Encourage your Amateur friends to come out for a very active evening.

Larry VE3LGN
Emergency Services Coordinator.

Membership List 2007

	Boshart, Larry D.	#107 - 446 Kingscourt Dr.	Waterloo ON	N2K 3R9
	Litwiller, James	15-139 Wellington St.	Kitchener ON	N2H 5J9
	Mazmanian, Charles	P.O. Box 32151	Preston ON	N3H 3R0
	Specht, Paul	784 Chesapeake Dr.	Waterloo ON	N2K 4A6
G7RZQ	Waterman, Nick	3227 King St E #903	Kitchener ON	N2A 3Z9
HK3FHE	Forero, Jorge	551 Vanier Dr. # 403	Kitchener ON	N2C 2J3
VA3AVR	van Roon, Tony	19 Market Street	Kitchener ON	N2K 1H1
VA3BEX	Bexon, Kenneth	296 Wilson Ave.	Kitchener ON	N2C 1H4
VA3BL	Martin, Bonnie	509 F Weber St. N.	Waterloo ON	N2L 4G1
VA3CLS	Ross, Hampford (Hammy)	32 Providence Dr.	Cambridge ON	N3H 5P2
VA3CT	Hayward, Colin	48 Schweitzer St.	Kitchener ON	N2K 1B4
VA3DAS	Schneider, David	38 Glendale Rd.	Kitchener ON	N2H 2Z8
VA3DGS	Schwartz, Dave	4135 Weimar Line, RR3	Wellesley ON	NOB 2T0
VA3DLT	Tabbert, Dennis	108 Oxford St. West, Box 31	Drumbo ON	NOJ 1G0
VA3ERX	Riddell, Alex	368 Wellington St N.	Kitchener ON	N2H 5L2
VA3EZT	Lamb, David	RR #2	Tavistock ON	NOB 2R0
VA3GGS	Steinacker, Glenn	56 - 30 Green Valley Drive	Kitchener ON	N2P 1G8
VA3GUS	Robertson, Janet	26 Dumfries St.	Cambridge ON	N1S 1Y7
VA3JFD	Ducharme, Joseph	123 Elgin Ave West	Goderich ON	N7A 2E4
VA3JHB	Aver, Mary Jane	282 Sandowne Dr.	Waterloo ON	N2K 2C2
VA3JMI	Miller, Jamie	653B Pinerow CR.	Waterloo ON	N2T 2K5
VA3KMP	Pauli, Keith	803-135 Confederation Dr.	Kitchener ON	N2B 1W1
VA3LAW	Miller, Peter	2212 Notre Dame Dr R.R. #1	St. Agatha ON	NOB 2L0
VA3LDA	Robertson, Linda	20 Locust Street	Kitchener ON	N2H 1W7
VA3LOU	Primeaux, Louis	11 Goundry Cres.	Kitchener ON	N2E 2X1
VA3LVO	Orr, Victor	37 Orchard Mill Cr.	Kitchener ON	N2P 1T2
VA3LWH	Hayward, Lynda	48 Schweitzer St.	Kitchener ON	N2K 1B4
VA3LWW	West, Larry	RR#3 156 Baird St. S.	Bright ON	NOJ 1B0
VA3MRJ	Johnson, David	46 Erika Cr.	Kitchener ON	N2E 4E7
VA3PTB	Bon, Peter	123 Vintage Cres.	Kitchener ON	N2P 1L1
VA3QF	Ballinger, Kieth	106 Laurel St.	Cambridge ON	N3H 3Y4
VA3RBM	Metcalf, Rob	361 Queen St.	Newmarket ON	L3Y 2G7
VA3REI	Blasig, Reinhart	36 Highview Dr.	Kitchener ON	N2N 1W4
VA3RSF	Francioso, Roberto	76 Meadowcreek Lane	Cambridge ON	N3H 4R8
VA3RTN	Newkirk, Ross	40 Combermere Cres.	Waterloo ON	N2L 5B1
VA3SDZ	Deignan, Samantha	16 Angus Court	Cambridge ON	N1R 5S7
VA3SKN	Schatz, Ken	25 Bleams Rd. East	New Hamburg ON	N3A 1G6
VA3TCS	Schoedel, Kevin	540 Mustang Pl.	Waterloo ON	N2K 4B9
VA3TET	Macdonald, Al	36 Orchard Park Cresent	Kitchener ON	N2M 2Y3
VA3WAA	Allan, William	10-50 Kingswood Dr.	Kitchener ON	N2E2K2
VA3WCM	Mabee, Walter	277 Hamilton Rd.	New Hamburg ON	N3A 2H7
VA3WFM	MacKay, Bill	92 Stonecroft Way	New Hamburg ON	N3A 4L6
VE2PK	Kaiman, Marvin	1138 Garden Road	Mississauga ON	L5H 3J6
VE3ARB	Elsby, Randy	118 Overlea Drive	Kitchener ON	N2M 1T1
VE3ASQ	Spike, Jonathan	239 Corrie Cr.	Waterloo ON	N2L 5W3

VE3AYZ	Pietrek, Arwed	209 Ottawa St. N.	Kitchener ON	N2H 3K9
VE3BAH	Harris, Bingham	110 Northside Dr.	St. Jacobs ON	NOB 2N0
VE3BBB	Waechter, Paul	1631 Maryhill Road	Breslau ON	NOB 1M0
VE3BDL	Blasig, Walter	59 McDougall Rd.	Waterloo ON	N2L 2W4
VE3BDP	Doran, Wayne	41 Trailview Drive	Kitchener ON	N2N 1P7
VE3BM	McElroy, Bill	16 Dogwood Place	Cambridge ON	N3C 2Z4
VE3BMI	Cormier, Paul	35 Gibson Court	Kitchener ON	N2B 2P1
VE3CBQ	Gimbel, Jean	1-89 Westmeadow Dr.	Kitchener ON	N2N 3N1
VE3CD	Bodman, Ted	3 Chelford Pl.	Waterloo ON	N2J 3T8
VE3CDF	Vanesch, Andy	13 Tallwood	West Montrose ON	
VE3CHJ	Cosby, Charles	614 Mortimer Dr.	Cambridge ON	N3H 5R7
VE3CMV	Veenhof, Fred	50 Shephard Place	New Hamburg ON	NOB 2G0
VE3CTY	Kaufman, Earl	1727 Daleview Cres.	Cambridge ON	N3H 4R4
VE3CWL	Brander, Alle	P.O. Box 37	Sebringville ON	N0K 1X0
VE3DBD	Gimbel, Ron	1-89 Westmeadow Dr.	Kitchener ON	N2N 3N1
VE3DCC	Clausi, Rich	1 Finch Place	Elmira ON	N3B 3B3
VE3DEQ	Perrault, Norm	553 Teakwood Dr.	Waterloo ON	N2L 4L5
VE3DSH	Hatt, Dan	RR2, Box 15	Warton ON	N0H 2T0
VE3DUA	Allen, Dave	53 Glen Avon Cres.	Kitchener ON	N2N 1C2
VE3DWH	Braun, Harold	309 Albert St.	Waterloo ON	N2L 3T9
VE3DYY	O'Robko, Gerry	37 Forest Glen Crt.	Kitchener ON	N2N 1E1
VE3EIX	Eix, Harry	1935 Floradale Road	Elmira ON	N3B 2Z1
VE3EOS	Hayward, Gord	48 Schweitzer St.	Kitchener ON	N2K 1B4
VE3ESE	Fisher, Don	48 Lucerne Drive	Kitchener ON	N2E 1B3
VE3ETK	Graham, Bill	91 Hillsborough Cr.	Kitchener ON	N2E 1J5
VE3EUC	Brubacher, Ralph	62 Centre St.	Elmira ON	N3B 2V8
VE3EUU	Doidge, John	232 Dearborn Blvd.	Waterloo ON	N2J 4Y4
VE3FAR	Scott, Mike	63 Carlos Ct.	Cambridge ON	N1R 8H4
VE3FOT	Sweet, Jim	92 Hall St.	Ayr ON	NOB 1E0
VE3FVF	Barton, Robert	26 Forler St.	Baden ON	N3A 2L3
VE3GFR	Robertson, Garry	26 Dumfries St.	Cambridge ON	N1S 1Y7
VE3GIM	Hayward, Gwilym	48 Schweitzer St.	Kitchener ON	N2K 1B4
VE3GIO	Schroeder, Larry	147 Waterloo St.	Woodstock ON	N4S 2T3
VE3GLU	Marquardt, Paul	43 Queensdale Cr.	Guelph ON	N1H 6W5
VE3GWE	Euler, Gordon	1704 - 6 Willow Street	Waterloo ON	N2J 4S3
VE3HAT	Hatton, Chris	1127-75 Barlake Ave.	Hamilton ON	L8E 1G8
VE3HEB	Hebert, Marc	148 Oneida Place	Kitchener ON	N2A 3G4
VE3HFO	Gonstaw, Casey	General Delivery	Clear Creek ON	N0E 1C0
VE3HQ5	Nikelski, Irwin	86 William N.	Wellesley ON	NOB 2T0
VE3IAP	Makin, Bill	1006-58 Bridgeport Rd. E.	Waterloo ON	N2J 4H5
VE3ICD	Sinclair, Don	240 Dawson St.	Waterloo ON	N2L 1S5
VE3JGK	Kornstein, Gary	11 Lyle Place	Kitchener ON	N2B 2J7
VE3JMU	Heidmiller, Jim	205 Royal St.	Waterloo ON	N2J 2H8
VE3JSA	Andrews, Steve	223 Westwood Dr.	Kitchener ON	N2M 2L3
VE3JVO	O'Robko, Jeff	37 Forest Glen Crt.	Kitchener ON	N2N 1E1
VE3KIS	Blom, John	54 Wellington Rd. 7	Elora ON	NOB 1S0
VE3KVD	McKay, Thomas	121 Devon St.	Stratford ON	N5A 2Z8
VE3LLF	Wilker, Craig	18 Cricket Hollow	Kitchener ON	N2N 1L6
VE3LMA	O'Robko, Linda	37 Forest Glen Crt.	Kitchener ON	N2N 1E1

VE3MIX	Willmott, Ken	485 Franklin St. N.	Kitchener ON	N2A 1Z2
VE3MTC	Matic, John	87 Georgian Cres.	Kitchener ON	N2B 3N8
VE3MTS	Hicks, Fred	52 Wilkins Dr.	Kitchener ON	N2E 1L2
VE3MWE	Riddell, Mary	38 Kingsley Cres.	Waterloo ON	N2L 1P7
VE3NN	Stevens, Dave	43 Ferncliffe St.	Cambridge ON	N1T 2C8
VE3NQM	Fuhr, Walter	P.O. Box 244	Tavistock ON	NOB 2R0
VE3NXB	Hollinger, Greg	42 Hillcrest Lane	Kitchener ON	N2K 1S8
VE3NXT	Moyer, Bob	74 Ripley Cres.	Kitchener ON	N2N 1V4
VE3OQB	Louwe, Fred	10 Pinnacle Dr.	Kitchener ON	N2P 1B7
VE3OU	Crump, Ernie	790 Regent St.	Cambridge ON	N3H 2V3
VE3OVP	Van Overbeek, Peter	5136 Rd.103	Wellesly ON	NOB 2T0
VE3QB	McLellan, Bruce	74 Bellamy Cr.	Fergus ON	N1M 3S7
VE3RAQ	Smith, William (Bill)	64-30 Green Valley Dr.	Kitchener ON	N2P 1G8
VE3RDF	Fischer, Roy	224 Ingleside Pl.	Kitchener ON	N2M 2H2
VE3RGG	Gibson, Gord	102 Grand River Blvd.	Kitchener ON	N2A 2T1
VE3RKS	Sanderson, Roger	651 Fern Road	Waterloo ON	N2V 1G4
VE3RTS	Cassidy, James	458 Thorndale Drive	Waterloo ON	N2T 1V4
VE3RVH	Horney, Reginald	45 Larkspur Cres.	Kitchener ON	N2M 4W8
VE3RVS	Stroud, Vern	111 Ruskview Rd.	Kitchener ON	N2M 4S1
VE3SCM	Mukul, Subodh	16-325 myers Rd.	Cambridge ON	N1P 1A6
VE3SHL	Govoni, Richard	48 Sunnylea Ave. East	Toronto ON	M8Y 2K3
VE3SJV	Lindsay, John	98 Brewery St.	Baden ON	N3A 2S7
VE3ST	Sasiela, Ben	567 Mill Park Drive	Kitchener ON	N2P 1V4
VE3SYJ	Reitzel, Paul	111 Sunpoint Cr.	Waterloo ON	N2V 1T5
VE3TCK	Spike, Edward	239 Corrie Cr.	Waterloo ON	N2L 5W3
VE3TJD	Doda, Tedd	21 Snyders Rd.	Baden ON	NOB 1G0
VE3TKY	Lindsay, Linda	98 Brewery St.	Baden ON	N3A 2S7
VE3TLG	Robertson, Ean	20 Locust St.	Kitchener ON	N2H 1W7
VE3TRW	Mawson, Randy	7 South Street East	Aylmer West ON	N5H 1P5
VE3UTO	Ward, Alan	76 Dudhope Ave.	Cambridge ON	N1R 4T7
VE3VCL	Clausi, Lorraine	1 Finch Place	Elmira ON	N3B 3B3
VE3WDL	Aver, Bill	282 Sandowne Dr.	Waterloo ON	N2K 2C2
VE3WFR	Riddell, Bill	368 Wellington St. N.	Kitchener ON	N2H 5L2
VE3WJX	Osask, Bill	1006-57 Queen St. N.	Kitchener ON	N2H 6T7
VE3XM	Abell, Bob	14 Parkview Dr.	Wellesley ON	NOB 2T0
VE3XN	Hammond, Garry	5 McLaren Ave.	Listowel ON	N4W 3K1
VE3XNB	Pelling, Bob	509 F Weber St. N.	Waterloo ON	N2L 4G1
VE3XOO	Hammer, Robert	3820 Nafziger Road RR2	Wellesley ON	NOB 2T0
VE3YAJ	Schaus, Al	164 Front St. Box 193	New Dundee ON	NOB 2E0
VE3YBM	Montgomery, Bruce	78 Charles Street	Stratford ON	N5A 5X7
VE3Z XK	Kuzych, Adam	50 Doon Rd.	Kitchener ON	N2G3C8
VE7JHW	Wilkinson, Harry	23-2081 Phillbrook Dr.	London ON	N5X 3A4
W9CQG	Hursh, Terry	32 Gay Crescent	Kitchener ON	N2A 2C3

David Johnson
dbjohnson@rogers.com



519-579-4110
Office



I HAVE MOVED!

My Real Estate Business is now located at
Remax Twin City Realty Inc. Brokerage
901 Victoria St. N, Kitchener

I look forward to meeting you at
the new location.

KWARC Membership Renewal

Please cut out the following renewal form and enclose it with your payment as your renewal date comes due. When you enter the birthday information; just your month and day are needed.

PLEASE MAIL TO: Kitchener-Waterloo Amateur Radio Club 133 Weber Street North, Suite #3-138 Waterloo Ontario N2J 3G9		
First Name	Call:	Last Name:
Address1:		Address2:
City:	Postal Code:	Email Address:
Phone Number: () - -		Birthday: <u> </u> Month <u> </u> Day
This is a [] RENEWAL or [] NEW APPLICATION		Kilowatter Preference [] MAIL [] From WEB
<input type="checkbox"/> Full Membership @ \$20.00 <input type="checkbox"/> Family membership adder @ \$5.00 <input type="checkbox"/> Seniors Membership @ \$10.00 <input type="checkbox"/> Student or Challenged individuals @ \$10.00		<input type="checkbox"/> Associate (non voting) @ \$10.00. I am a member of the _____ Club. <input type="checkbox"/> Printed Kilowatter Newsletter "Mailed" @ \$10.00
Comments:		
Total Amount Enclosed: \$		Your Cheque Number :



INFORMATION GATEWAY SERVICES

Kitchener-Waterloo Cambridge and Guelph

Information Gateway Services
(Kitchener-Waterloo) Inc.
151 Frobisher Dr., Suite E-118,
Waterloo, Ontario, N2V 2C9

Owner Operator : Don Sinclair VE3ICD

Information Gateway Services (IGS) provides a complete range of Internet services ranging from entry level personal accounts for beginners, right up to the requirements of large commercial organizations.

SPECIAL OFFER TO KWARC MEMBERS

- No activation fee on standard personal accounts for KWARC members. A \$25.00 saving
- \$50 per six months or \$75 per year paid in advance for 5 hours/month --- (extra hours at \$2.00 per hour).
OR \$15/month \$150 year for 30 hours/month (this popular package has just been increased from 20 hrs)
- N E W Now get **UNLIMITED FREE time** from midnight until 7am
- One free KWARC e-mail address *urcall@kwarc.org* for KWARC members
No coupons or other discounts can be used in conjunction with these special offers to KWARC members ONLY.

For complete details, call Don Sinclair VE3ICD at 884-7200