

Kilowatter

**The voice of the KW Amateur Radio Club
Since 1922**

Kitchener-Waterloo Amateur Radio Club

Box 34012 Highland Hills Postal Station;
Kitchener, Ontario N2N 3G2

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MONDAY'S MEETING

Date : Monday April 8th 2002

Time : 7:30pm

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

Topic: **Our Annual Show-n-Tell**

Back by popular demand, once again, we are scheduling a "Show and Tell" evening at the April 8 2002 of the KWARC meeting.

This is where our members have the opportunity to "strut our stuff" and bring in something interesting that they have been doing, a new experiment, perhaps a project that they started, some new gear recently

Our Annual Show - N - Tell

found or just an interesting experience that they had over the past year.

All members are welcome to join in and share with others, so start digging into those items that you would just love to chat about. The entire evening before the usual business portion will be time set aside just for the members.

Last years "show and tell" displayed many items from various hams. We had a look at some new cellular radios, and security sensors, a field 2 meter cloth pocket antenna, to mention a few.

Thanks and C U there

Ben VA3BNY

2002 MEETING LINE-UP AND SPECIAL EVENTS

all meetings open to members and Non-Members

Your Meeting Program Chairman David Johnson VA3MRJ has lined up a great list of speakers. He would be glad to have your ideas for future meetings. You can contact David at 569-8782 or by email va3mrj@rac.ca

May 7

Back by popular demand will be Brian Clark and Robert Wilson from **The Record** speaking on Digital cameras. We had a record attendance when this subject was last presented.



June 4

Our Annual General Meeting and Election of Officers for next year

JUNE 8

The Central Ontario Hamfest in Fergus

June 22-23

Field Day to be held again at Doon Pioneer Village.

CANWARN TRAINING SESSION at U of W APRIL 17. See inside for details

Upcoming FleaMarkets

Saturday, April 27, 2002,
Durham Region Amateur Radio Hamfest
North Shore and South Pickering ARCs
Whitby ON

Saturday, May 11, 2002
Skywide ARC
Westway United Church,
8 Templar Drive, Etobicoke

NEW E-MAIL OR CHANGE OF ADDRESS??

As members move to a new QTH it is important that they keep us informed so their Kilowatter does not go astray. You can notify us of any changes to your address, phone

number or e-mail address by e-mail, editor@kwarc.org or by phone 634-5139.

Those on-line can check your record from the Home Page by

placing your call in the club roster search field. We especially need e-mail addresses for all members with same.

Kitchener Waterloo Amateur Radio Club

Box 34012 Highland Hills Postal Station; Kitchener, Ont. N2N-3G2

KWARC Directors 2001-02

President	Dennis Tabbert	VA3DLT	463-9641
Vice President	Bill Graham	VE3ETK	576-3578
Past President	Bob McKie	VA3MCK	579-2333
Treasurer	Dave Schwartz	VA3DGS	884-3594
Secretary	David Johnson	VA3MRJ	746-8939
Director	Ben Sasiela	VA3BNY	748-0445
Director	Larry Gorman	VE3LGN	884-6782

The Executive Committee

Program	David Johnson	VA3MRJ	746-8939
Membership Chairman	Bill Graham	VE3ETK	576-3578
Technical	Ben Sasiela	VA3BNY	748-0445
Packet Users	Larry Gorman	VE3LGN	884-6782
Database Mgr	Dave Schwartz	VA3DGS	884-3594
Bulletin Editor	Paul Cassel	VE3SY	634-5139
Edu. Co-Ord	Ron Gimbel	VE3DBD	699-4488
Chief Examiner	Vern Stroud	VE3RVS	743-9342
Emerg. Services Chair	Ed Spike	VE3TCK	884-2129
ARES Manager	Larry Gorman	VE3LGN	884-6782
CANWARN Mgr.	Ron Gravelle	VA3TVS	569-8746
QSL Manager	Gord Gibson	VE3NOK	893-5148
Virtual Swap-Shop	Dave Schwartz	VA3DGS	884-3594
Bereavement	Marg Cassel	VE3RE	634-5139

KWARC Owned Repeaters/Nodes

Mode	Call	Freq.	PL patch	Location
Voice	VE3KSR	146.970	Y member	Baden Hill
Voice	VE3RCK	146.865	Y member	Kitchener
Packet	VE3KSR-0	145.010		Baden Hill
Packet	VE3KWQ	145.090		Waterloo
Voice	VE3IXY	224.340		Kitchener
Voice	VE3SED	52.340		Baden
Voice	VE3RBM	444.875	y	Kitchener IRLP

Tone Frequencies (PL) for above are all 131.8

Other Area Repeaters/Nodes

Mode	Call	Freq.	PL patch	Location
Voice	VE3SY	147.570	Y S I M P L E X	Petersburg IRLP
Voice	VE3EUC	444.700	N	Elmira
Voice	VE3KFM	442.000	Y open	Kitchener
Voice	VE3RND	145.330	Y	Plattsville
Voice	VE3SWR	146.790	N	Cambridge
Voice	VE3WFM	147.090	N private	Waterloo IRLP
Voice	VE3WWW	146.835	N	U of W
Voice	VE3RSS	147.030	N members	Acton
Voice	VE3ZMG	145.210	N Open	Guelph
Packet	VE3VIQ	145.570		Guelph
TCP/IP	VE3MKY	145.570		Guelph
TCP/IP	VE3UOW	145.570		U of W BBS

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On-Line Members are urged to use this medium so as to minimize mailing costs.

Last Months Meeting "Industrial Espionage"

by Bill Graham VE3ETK, Vice President

There is an old line that goes 'Just because you're not paranoid doesn't mean they're not out to get you'. Boy, if anything could get one paranoid it was the subject of our March guest speaker - Electronic Counter Measures.

Doug Ralph VE3RT was our guest speaker, and the reason you don't see him in a picture here is because his identity (or lack of it, that is) is vital to the success of his company ComSec Services Inc., which protects companies and individuals from hackers and spies. And yes, some of the electronic goodies he showed us rival those of James Bond.

Anything from laser microphones to night vision scopes, from spectrum analyzers to fancy bugs, from frequency monitors to



camera detectors. Doug has at his command the tools to make Q envious and more importantly to rid a site of anything that might be used to spy on you. I was most intrigued with a unit he uses that will detect solid state junctions, even if the chips or transistors are turned off.

The Nortel video Doug presented certainly opened our eyes to the myriad ways that our business and private 'phone lines can be 'tapped' - and that includes your computer when it is connected to the telephone system. All in all, the presentation was not only educational, but humorous through little stories Doug shared with us. In the end we discovered there is no reason to be paranoid about 'tapping' technology because there are people out there like Doug who will 'clean house' for you. The knowledge we gained very much increases our awareness and therefore our ability to deal with those who would know our secrets. If you weren't there you missed another great guest speaker!

The Prez Sez

Dennis Tabbert VA3DLT President KWARC

Greetings to all, The elections are approaching for the board of directors in June. The annual general meeting and election of officers will be held on Monday June 3rd 2002 at the RCAF Wing 404 Club. We need at least two new volunteers to fill vacant positions on the board. Please think about this and submit your name if interested. At the annual meeting, the financial statement is read and a new board of directors is elected for the ensuing year. The board of directors shall consist of the following: Past President (non elected), President, Vice-President, Secretary and Treasurer up to a maximum of seven directors.

The flea market is coming up on Saturday June 8th in Fergus, at the Fergus and District Community Centre. This event is sponsored by the Guelph and the Kitchener - Waterloo Amateur Radio Clubs. The doors open at 8:00 am. General Admission \$5.00, children under 12 free. Plenty of parking and overnight camping. Hugh Baird VE3IYG our clubs representative will be signing up volunteers at the next two upcoming meetings. Let's show our club support and help out. ! For more information the website is www.hamfest.on.ca

Field day is approaching and will be held June 22-23 at Doon Pioneer Village. Our

new field day coordinator is Jonathon Doll VE3CBX. For the past 56years KWARC has participated in the annual field day competition and exercise. Sponsored by the American Radio Relay League, this contest tests the emergency preparedness of our club as we set up and operate for 24 hours under emergency conditions. Contact Jonathon to indicate your choice of frequencies.

See you at the club meeting on Monday night.

Dennis Tabbert VA3DLT President

On Saturday February 16, 2002 I had the pleasant opportunity to Work with Mr. David Lamb VA3EZT who lives just outside of Tavistock Ontario with Tavistock #1 Girl Guide Troop. David had mentioned a few week earlier on one of Festival City Amateur Radio Club Sunday Evening Nets that he was planning on doing this GOTA jamboree again with the girl guides using IRLP.

It had originally been planned to work from the Tavistock Legion but due to other reasons the Guides weren't able to use the building. Instead they held there meeting out at David's VA3EZT Home just outside of Tavistock. Being that I had no other plans I offer my assistance to Dave in case he required any additional help in setting things up.

The Guides all assembled at David's QTH around 9:30am I brought along a pair FRS Radio's so that we could leave one in the David's Shack and One for the Guides Leaders. This enabled us to communicate with the leaders when to send another group a guides to come and take there turn this was extremely benefit due to the Poor Weather Conditions that we appeared that overnight and into the morning.

Dave had planned on using the 444.875 VE3RBM IRLP NODE 241 which had been pre-arranged with Paul Cassel VE3SY from the Kitchener Waterloo Amateur Radio Club. At approximately 8:45am I was heading out to Dave's Residence and was talking with him and some of the other groups that had guides coming out and then we starting getting some Packet Loss over a period time it got worse. Dave decided to try the node 242 on 147.570 which was located at Petersburg Ontario at Home of Paul

VE3SY and was successfully able to sort things out by the time the first group of guides were ready to come out.



Dave VA3EZT is testing out the 2 meter radio out to see whether it will do job and if he can make contact with the rest of the groups that had guides waiting to talk to each other via IRLP.

James Davidson VE3TPZ brought some various QSL cards that the Festival City Amateur Radio Club had received over the past couple of years. With the Add of a World Map let the Guides figure out where each of the QSL Cards had come from while waiting for there turn to talk on the radio.

The Guides were able to talk with other Girl Guides troops in Owen Sound Ontario, Saint John's New Brunswick, British Columbia, and California. A number of the Girl Guides Troops also Trippy WD8OEP from Port Huron, Michigan who is a Blind Ham whom enjoys getting on the radio and talking with everyone.



The Tavistock #1 Girl Guides Troop with the Radio Operators standing beside David Lamb's Tower at this QTH Just outside of Tavistock.

Overall I believe we have a number of guides who are showing some interest in learning more about the Amateur Radio Hobby who knows we may have a few more new voices on the airwaves in the next few years.

Special Thanks to the Kitchener Waterloo Amateur Radio Club, Paul VE3SY, and to the IRLP network, and REFLECTOR Node 931 for allowing the Girl guides to use the System to communicate back and forth across the Internet.

Article Approved by
Mona Eichman Tavistock #1 Girl Guides Leader
David Lamb VA3EZT
Digital Photos &Written By
James Davidson VE3TPZ

Morse Code Practice Now Underway

by Bill VE3ETK

KWARC is offering code practice sessions for those who have a Basic license and want to get on the HF bands. We invite everyone in our listening area who wants to upgrade to participate, and will be broadcasting on Tuesday and Thursday evenings at 7:30PM and Sunday afternoons at 3PM. Should anything change we will always have up to date details listed on our website www.kwarc.org.

The transmissions is on our NASA frequency of 147.510 and will occur unless there is some NASA activity to preempt them. The lessons will start at 3 WPM and work their way up to 7 WPM, and will include random words, normal text, and

some mock QSO's. That will give you a good speed margin to make the 5 WPM test required now to get on HF.

As announced previously your responsibility will be to learn the basic dit and dah combinations for the alphabet, numbers, and common punctuation before starting to listen to the practice sessions.

It is also very



important to practice sending Morse. The best way to do this is with the help of others, so if you contact ve3etk@rac.ca via e-mail, giving

your name and phone number, we'll list those people who are looking for partners so you can put together a little group for practice sessions.

Also, it will be announced at the next KWARC meeting that there is a need for keys, or code practice oscillators that our members can make available to you (for sale or for loan). Keys are getting to be hard to find, as there is not a big sales market now, and they've become collectors items at flea markets. Waterloo Electronics has its last two keys in stock, and a good selection of buzzers and battery holders if you want to make your own.

73 de Bill VE3ETK

Are You Part of the SETI@home Project?

by Paul VE3SY

The Search For Extraterrestrial Intelligence **SETI@home**

About a year ago Gord Lomoth VE3GHL told me about the [SETI@Home](http://setiathome.ssl.berkeley.edu) project. I went to the web site and found a very interesting project of enormous proportion had been underway for some time and everyone with a PC connected to the internet could participate.

SETI or the Search for Extraterrestrial Intelligence, is a program of distributed computing where the University of California Berkley Campus. The following is a few paragraphs from the SETI web site located at <http://setiathome.ssl.berkeley.edu>

Most of the SETI programs in existence today, including those at UC Berkeley build large computers that analyze that data from the telescope in real time. None of these computers look very deeply at the data for weak signals nor do they look for a large class of signal types (which we'll discuss further on...) The reason for this is because they are limited by the amount of computer power available for data analysis. To tease out the weakest signals, a great amount of computer power is necessary. It would take a monstrous supercomputer to get the job done. SETI programs could never afford to build or buy that computing power. There is a trade-off that they can make. Rather than a huge computer to do the job, they could use a smaller computer but just take longer to do it. But then there would be lots of data piling up. What if they used LOTS of small computers, all working simultaneously on different parts of the analysis? Where can the SETI team possibly find thousands of computers they'd need to analyze the data continuously streaming from Arecibo?

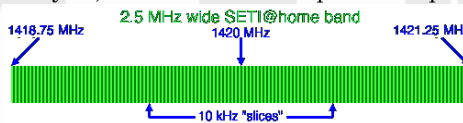
The UC Berkeley SETI team has discovered that there are already thousands of computers that might be available for use. Most of these computers sit around most of the time with toasters flying across their screens accomplishing absolutely nothing and wasting electricity to boot. This is where SETI@home (and you!) come into the picture. The SETI@home project hopes to convince you

to allow us to borrow your computer when you aren't using it and to help us "...search out new life and new civilizations." We'll do this with a screen saver that can go get a chunk of data from us over the internet, analyze that data, and then report the results back to us. When you need your computer back, our screen saver instantly gets out of the way and only continues it's analysis when you are finished with your work.

It's an interesting and difficult task. There's so much data to analyze that it seems impossible! Fortunately, the data analysis task can be easily broken up into little pieces that can all be worked on separately and in parallel. None of the pieces depends on the other pieces. Also, there is only a finite amount of sky that can be seen from Arecibo. In the next two years the entire sky as seen from the telescope will be scanned three times. They feel that this will be enough for the project.

Data is recorded on high-density tapes at the Arecibo telescope in Puerto Rico, filling about one 35 Gbyte DLT tape per day. Because Arecibo does not have a high bandwidth Internet connection, the data tape must go by snail-mail to Berkeley. The data is then divided into 0.25 Mbyte chunks (which we call "work-units"). These are sent from the Seti@Home server over the Internet to people around the world to analyze.

SETI@home looks at 2.5 MHz of data, centered at 1420 MHz. This is still too broad a spectrum to send to you for analysis, so we break this spectrum space



up into 256 pieces, each 10 kHz wide (more like 9766 Hz, but we'll simplify the numbers to make calculations easier to see). This is done with a software program called the "splitter". These 10 kHz pieces are now more manageable in size. To record signals up to 10 KHz you have to

record the bits at 20,000 bits per second (kbps). (This is called the Nyquist frequency.) We send you about 107 seconds of this 10 kHz (20kbps) data. 100 seconds times 20,000 bits equals 2,000,000 bits, or about 0.25 megabyte given that there are 8 bits per byte. Again, we call this 0.25 megabyte chunk a "work-unit." We also send you lots of additional info about the work-unit, so the total comes out to about 340 kbytes of data.

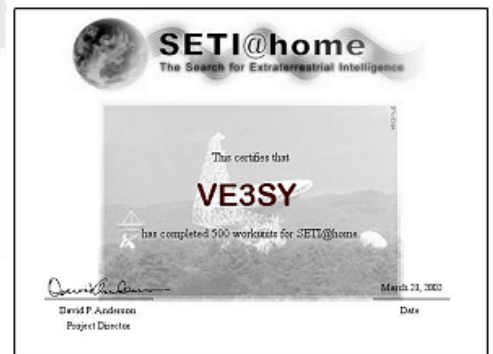
I have 2 PC running the SETI application in the background 24 hours a day. There are currently users like me in 226 countries around the world contributing to this project. At one of my contract customers (MRC Wireless) I started all of their PCs on this over a year ago and todate they have collectively processed 1,800 workunits.

I recently received an email after completing the crunching of 500 snippets of data which represented 1.2 years of computer time. On the completion of the 500th workunit the following e-mail was received.

Congratulations on recently completing your 500th SETI@home workunit. Through your support, SETI@home has grown to become the largest distributed computation on Earth. We at SETI@home greatly appreciate the 1.21 years of computer time you have donated to the project, and hope that you will continue your support. As a small token of our appreciation, you may now download and print an official certificate stating your achievement of this goal.

Thank you again for your contribution.

Sincerely, The SETI@home Team



	Total	Last 24 Hours
Users	3,614,519	2,143 (note)
Results received	470,983,643	602,530
Total CPU time	921,350,642 years	955,559 years
Floating Point Operations	1.421021e+21	2.349867e+18 (27.20 TeraFLOPs/sec)
Average CPU time per work unit	17 hr 08 min 11.5 sec	13 hr 53 min 33.3 sec

NOTES: The number of users in the past 24 hours represents the number of NEW users, not the number of users who have connected within 24 hours



This years CANWARN training will be taught by Mr. Paul Robertson, VE3HFQ from Chatham. It will be held on **Wednesday April 17, 7:00pm** at

the University of Waterloo in room 1302 of the Davis Centre. Parking will be on Phillip street, just north of University Ave. Same place as last year.

The CANWARN program deal's with severe weather identification, observational techniques and reporting condition codes to Net Control. Environment Canada and your Regional Coordinator recommend the free yearly refresher course, or for those interested in becoming a storm spotter, to attend this training session for the first time. The course has been updated with storm images from last July 4th 2001 "Tornado Outbreak" when seven tornadoes were tracked on radar, observed by base and mobile spotters alike and ultimately confirmed by EC Damage Survey Teams the next day. All Amateur Clubs and their interested members are welcome from around the area. It was a great turn out last year and I hope to see you on Wednesday April 17th, at the University of Waterloo.

Here's a brief BIO on Paul.

Paul Robertson

Paul is known to his friends and to most of the media outlets in southern and Southwestern Ontario as "The Weather Guy".

One of Paul's hobbies is amateur radio and it was through his efforts and the efforts of four other amateur radio operators in Windsor that a joint volunteer partnership with Environment Canada resulted in the formation of "CANWARN". This program is a volunteer amateur radio network of trained severe weather observers who notify direct (via amateur radio) the weather specialists at the severe weather desk of conditions such as tornados, wall clouds and damaging winds. The "CANWARN" program has grown from the initial 22 participants to now over several thousand and has become a nationwide program of environment Canada.

Paul had concerns following some incidents regarding the lack of proper timing of warnings back in the summer of 1997. The minister of the environment commissioned a cross section of citizens to investigate his claims and a public inquiry was commissioned to look into the

matter. Paul acted as chairperson of this committee and it was through the 18 recommendations of this group that warning procedures were amended and improved across Canada. It was this group that was also instrumental in expediting the installation and upgrade to Doppler radar for the Exeter radar station that covers severe weather prone Southwestern Ontario.

Paul, currently is employed by the client services branch of Environment Canada and is involved in the marketing of Environment Canada's specialized services, public relations and generally "getting the word to the public" of the importance of weather radio, notification of warnings to emergency services personnel and working with the CANWARN volunteers.

Paul currently lives in Chatham, has had his amateur "ticket" since 1974 and his callsign is VE3HFQ.

He will be giving the CANWARN training in the Waterloo Region on Wednesday, April 17th. 7:00 pm in room DC1302 of the Davis Centre, University of Waterloo.

' 73, Ron VA3TVS
CANWARN Coordinator
Waterloo Region

Executive Committee Meeting March Minutes

David VA3MRJ Secretary

Present: President Dennis, Past President Bob, Treasurer Dave, Recording secretary David, Tech Chairman Ben, President elect Bill, Ares& Packet Chairman Larry. KWARC members Paul VE3SY and Hugh VE3IYG and guests from the Stratford Club Tom McKay VE3KVD and Bruce Montgomery VE3YBM.

Meeting was called to order and Ben introduced the guest from the Stratford Club who outlined a proposal to install a cross band repeater at Baden. Tom distributed hand outs showing the signal routing for the project. The purpose is to get better VHF coverage in kitchener for the Stratford repeater.

Motion by Ben, 2nded by Bob that " KWARC allows the Stratford Amateur Radio Club to install a cross band repeater at the Baden site"

Motion carried.

KWARC member and Flea market Chairman Hugh addressed the board requesting an increase in the float amount to operate the Flea market. Increasing costs have necessitated members using personal funds for flea

market activities. Hugh passed out a budget to support his request.

Motion by David 2nder Larry that " KWARC advances \$ 100.00 to the Flea market float, making the total float \$ 900.00 for KWARC's portion"

Motion carried

Bill Graham brought forth the suggestion that John Schreiter be approached to replace Ed Spike as Emergency Coordinator who has resigned. Paul gave some background on the position. It was summarized that the board waits until there is a need established in Canwarn or Ares before proceeding further. It was mentioned Ron Gravelle may have difficulty continuing in his Canwarn role and Bob suggested we try and find some members to help out.

Ben advised the board that Terry VE3NSV will be operating an IRLP station on Field Day. Paul will supply a map for Terry to use to identify the geographical location of IRLP stations around the world.

Ben asked if the club would support Communications Day at Doon, it was stated tat this was already dealt with at

the last meeting and Paul will be heading up the project. Bill Graham will be heading up the 80 th anniversary of KWARC in conjunction with Field Day.

A discussion took place about Field Day, Bob said he will help and Fred Lowe will co-ordinate with Jonathon Doll who volunteered to be Field Day Coordinator, with help.

David asked the board to be given keys for the Baden site since Ben had refused to provide them. A short discussion took place over who had keys.

Motion by Bob 2nded by Bill that " keys be given to all active members of the Technical Committee for the Baden site" motion carried

David advised the board that KWARC does not have any agreements in place with Bell Canada for the Manhiem site. Ben stated we did, but, it turns out the agreement is between Ben and Bell Canada.

Motion to adjourn by Ben 2nded by Dave
Meeting Adjourned at 9:30pm?

Minutes of March 4th 2002 KWARC Meeting.

David VA3MRJ Secretary

Minutes of the Kitchener Waterloo Amateur Radio Club for the General Meeting of March 4, 2002 recorded by David Johnson VA3MRJ.

President Dennis called the meeting to order at 7:40pm. 42 members and guests were in attendance.

Following introduction, Program Chairman David VA3MRJ, introduced our guest speaker, Doug Ralph, VE3RT. Doug spoke to us on his experiences on security issues. (see the article from Bill VE3ETK for complete details on the program)

After the coffee break we had the 50/50 draw, Linda VA3LWH won \$ 15.50.

Hugh, VE3IYG spoke to the club asking for members to help pass the word about the upcoming Fleamarket. Members are asked to distribute flyers at other Fleamarkets.

Rich, VE3DCC addressed the members in

his usual humorous fashion requesting members to assist with the elite and fun activity of helping to direct cars for parking. Volunteers may contact Rich at VE3DCC@KWARC.ORG.

Linda, VA3LWH spoke to our members requesting help from the Club with a Scout Camp July 20-26, 2002. The camp will be held in Everton, located between Guelph and Erin. Volunteers are needed to demonstrate IRLP and a possible ham station setup. Build projects such as antennae's or crystal radio could be built to show the Scouts about amateur radio. If you have an interest in helping out please contact Linda at VE3EOS@KWARC.ORG.

Our President elect Bill, spoke to the members about the 80th anniversary of KWARC. He would like to see a display on the History of Radio, during field-day. Several members volunteered but more help is needed, please contact Bill if you

can help out. Ben gave a brief outline of the facilities available at Doon Village for field day and our 80th Anniversary.

Past President Bob, VA3MCK, asked for a volunteer to head up field day. Last years co-ordinator wants to concentrate on operating a band and is unable to take on the added responsibilities. Jonathon Doll volunteered to help but needs assistance with cooking. contact JDOLL@RIM.NET

President Dennis reminded exec members of the meeting Tuesday night.

Gord VE3NQG asked members to contact him directly if members want to use the club call sign.

Gord motioned that the meeting be adjourned, seconded by Marc VE3HEB.

Thanks to Ben and Ed Spike for the AV equipment and Fred Lowe for making the coffee.

A Call for Field Day 2002 Operators

by Jon VE3CBX



Welcome to the beginning of an exciting adventure for 24 hours in simulation of an emergency civil defence exercise with the Kitchener Waterloo Amateur Radio Club on the 22-23 June 2002.

This year we welcome all operators to bring along with them a challenging spirit

of vitality and enthusiasm as we gather together in harmony, taking on the tasks of responsibility in providing a system of communications, independent of all connections to the real world commercially provided necessary day to day accessible provisions.

Using our operating skills as we form a team to take hold of all the given frequencies and operating modes that are

required in making a successful Field Day operations in our region.

Join us on the June 22 weekend at the Doon Heritage Crossroads (Pioneer Village) and be part of this years Field Day.

I will welcome your replies by email jdoll@rim.net or phone at 624-7020

Jonathan Doll VE3CBX

Technical Report

by Ben VA3BNY KWARC Tech Chair

In this months report, the technical committee is still working on the new VE3KSR repeater, now that the crystals have arrived and we have the new CAT 1000 controller.

Paul Cassel is reconfiguring the two Mastr II that were acquired, and seeking to obtain the VHF manuals before final alignment can be done. As this repeater was also the ULR link through VE3BHR, there is a bit more wiring to that system needed. Our goal is to take a bit longer, but be able to give life to this new equipment with all systems working, thus, reducing any re-visits to the repeater site especially with summer coming on, and the need for a reliable Carwarn System. During the past two storms that raced through this area, we also lost several of the small cups that rotate the wind speed indicator at the Baden weather station the club maintains. Wind speeds in excess of 138 kpm were recorded during one severe windstorm by this equipment. Thanks to Dave VE3DGS, who braved the climb to replace the cups, all seems to be working faithfully now. Our local TV station uses this data frequently during the shows

weather broadcasts, as well as being displayed on our clubs web site and APRS (Automatic packet Reporting System).

For those of you that are on the internet, there is a growing number of ham related sites offering everything from free software, to on help, swap nets, club sites and much more. Our own club's web site contains many links to very interesting locations, and also accepts your favourite link info posting. www.kwarc.org/hamlinks/hamsoft.html

Here are some of my other favourite interesting sites. Amateur Radio Resource Pages found at <http://sonic.ucdavis.edu/so02000.html>

contains a great collection of diagrams, projects, and information in both downloadable zip format or viewed in PDF format. Thinking of travelling through our country, or the USA and need repeater information, try, www.artscipub.com/repeaters/ Click on the providence or state and get repeater instant frequencies, offsets, PL tone and more. Click on the repeater frequencies, and you'll see links to ham clubs, city info,

and even maps of the area. There's even an area for buy & sell items. Electronic Circuits for the Hobbyist is a great site, www.uohuelph.ca/~antoon/circ/circuits.htm contains references to radio shack parts, tutorials and info/links to a variety of sites. If your into the tube style radio's and in need of need data on a vintage tube, try Ake's Tube Data site www.tubedata.com for a complete reference from domestic tubes to military, special purpose, European cross reference, as well as tube spec's and symbols. Lots of free ham software also available at <http://uhaweb.hartford.edu/eetsw/welcome.html> including a very neat Canadian program called HamCalc.32, which contains mountains of easy to use ham related calculations and formula's

These are just the tip of what is available, and if you have a favourite site, please add it to the clubs webs site so others can enjoy.

VA3BNY De Ben
Technical kwarc

QRV indicated future topics will touch on items of interest around the club as well as operating procedural tips . If anyone has any tips they would like to leave for QRV, they can be e-mailed to QRV@KWARC.ORG and it will be auto forwarded to the anonymous QRV



I've been pursuing a project I work on from time to time and thought that all you readers out there might be interested. I read about this

several years ago and as we have a big old generator at the station, and as there are some nights here that the bands get boring it's been an ideal project to pass the time.

Now the principal behind it all is called Contra Polar Energy, and the idea is to get some negative energy going, which should reverse many of our common beliefs about electronics. So, what I've been doing is getting the generator to run backwards, then reverse all the diodes in the control unit. That worked out well, so the next step was to reverse the output leads and feed the whole thing into some new outlets. Needless to say this has taken some time to do and test out each step, but that's how it is with experimental work and you'll all know about that.

Once that was all in place I had to set

up some devices to run from this new supply of negative energy. For example a hot plate, you know, one of those nice little two burner electric gadgets to boil a kettle on or heat up some soup. One of those would be handy here anyway for those chilly nights when the bands are hot. Garage sales are not common this time of year, but with some persistence I found one with both burners working. I hope the club Treasurer doesn't mind me putting in a ten dollar chit. If I could get this working there was no end to what we could accomplish. It would be possible to double the spectrum available to every ham. We could possibly eliminate QRM and even some QRN as tests conducted on other dark and dreary nights has shown that most of that is due to positive spikes; you see, were going to do everything on a negative basis. Oh I know that's no way to conduct meetings, but it could be really useful in other ways.

So, on goes the hot plate and I put a nice metal ice cube tray on it, run into the back room and fire up the modified generator (don't tell Ben I've been tinkering with the gear), then return to the operating position and wait. As I

do, I'm thinking about the whole negative spectrum we could end up with; like minus 20 meters, minus 144 MHz; I dream on as the generator chugs away. Then it hits me, plug in a light! Sure enough the room goes black – all the light is sucked out into the negative power source. Now I'm sitting in the dark but then people often tell me I'm in the dark about lots of things. I switch the light off and now I can see again. Halleluia! I rush over to the ice cube tray and what do you know, it's full of cubes. Now if I had a little Scotch here I could make a drink. There are those who may be thinking I've been into the bottle already, but you're wrong.

All of a sudden the generator quits, dies with a great bang. What have I done? Maybe sucked to much heat or light back into the generator and overloaded it. I'd better make a note in the log book of when it happened 'cause Ben is going to want to know. As I pull the log book closer I glance up at the clock. It's now 30 seconds into April second! Electronics can be a funny thing sometimes.

At least, That's How IC It.

73 de QRV

[30]

Morse Code Practice Now Underway

by Bill VE3ETK

KWARC is offering code practice sessions for those who have a Basic license and want to get on the HF bands. We invite everyone in our listening area who wants to upgrade to participate. We started broadcasting, on March 19th, but don't let a late start hold you back as the lessons will run for 14 weeks. Lessons will be on every Tuesday and Thursday evenings at 7:30PM and Sunday afternoons at 3PM. Should anything change we will always have up to date details listed on our website www.kwarc.org.

The transmissions are on our NASA frequency of 147.510 and will occur unless there is some NASA activity to

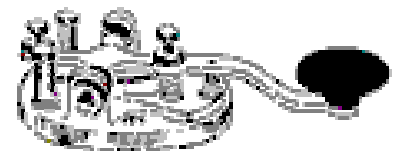
preempt them. The lessons start at 3 WPM and work their way up to 7 WPM, and include random words, normal text, and some mock QSO's. That will give you a good speed margin to make the 5 WPM test required now to get on HF.

As announced previously your responsibility will be to learn the basic dit and dah combinations for the alphabet, numbers, and common punctuation before starting to listen to the practice sessions. It is also very important to practice sending Morse. The best way to do this is with the help of others, so if you contact ve3etk@rac.ca via e-mail, giving your name and phone number, we'll list those

people who are looking for partners so you can put together a little group for practice sessions.

For those who want to make a Code Practice buzzer Waterloo Electronics has two keys in stock, and a good selection of buzzers and battery holders.

73, Bill VE3ETK



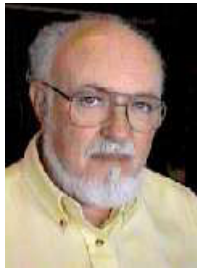
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2002
HOLIDAY'S NOW!**



Join us in
VERNON
British Columbia
in the Sunny Okanagan
Valley
for the 2nd National
RAC Convention

Membership Report

Membership Chairman and VP, Bill VE3ETK



This year is KWARC's 80th anniversary and we're going to celebrate it at Doon Heritage Crossroads on June the 22nd! That's the Saturday of Field Day weekend, so there will be lots of

activity for the public to come out and see.

For the anniversary portion KWARC will be once again running a Communications Day with a few extra goodies. We also plan on operating two IRLP stations so the visiting public can get on the air and experience some of the wonders of Amateur Radio. The public will see communications 'develop' from telegraphy through the early years of radio equipment, hear some segments of early radio broadcasts, personally take

part in 'on the air' communications via IRLP, and see the club in action during Field Day - a simulated emergency situation. All of this is happening through some outstanding cooperation with Doon Heritage Crossroads, and we thank them.

What does all of this have to do with club membership? Every person we interest in our great hobby is a potential club member. What does all of this have to do with you? Members are the ones who get new members, not the Membership Chairperson. Statistics prove that!

We have a good basic team assembled to get the show on the road. What we need are people (by that read 'You the club members') to come out (you'll get in free) and spend a couple of hours meeting the visitors, answering their questions, or put them on the air via IRLP. You will be doing your part to help KWARC grow,

and show others what a great hobby you have. A multipage handout about KWARC and the hobby will be available to give to our visitors.

Doon Heritage Crossroads will be making posters to promote the event and our 80th Anniversary, and we plan on sending out media releases that will result in some newspaper, radio, and TV coverage. Overall, the community will be aware of KWARC's public service works, the fun of being a 'Ham', and the benefits of membership. How's that for a celebration?

I'm looking forward to hearing from our members; do talk to me at the next club meeting, or tell me of your interest in helping out in some small way by contacting me at ve3etk@rac.ca or by phone at 576-3578

Bill VE3ETK

Welcome New Members

by Bill VE3ETK Membership Chairman and VP

A very hearty WELCOME from KWARC to these new club members:

PLEASE WELCOME

Dave Anderson, VE3HDV, Ted Pimm VA3ZED both of Cambridge and William Martin of Kitchener

The Bean Count Report as of March 29, 2002

Description	Amount	Totals
Revenues		
Prev KWARC financial year bal fwd	\$3,038.80	
Group total:		\$3,038.80
KWARC Membership fees	\$2,349.63	
Group total:		\$2,349.63
KWARC COARF		
KWARC table	\$77.00	
Group total:		\$77.00
Club meeting revenue		
KWARC 50/50 draw revenue	\$125.25	
KWARC auction revenue	\$3,097.04	
Group total:		\$3,222.29
Other KWARC revenue		
KWARC other rev. sources	\$56.00	
Group total:		\$56.00
Revenue total:		\$8,743.72
Expenses		
Bulletin expense		
Production exp.	\$878.81	
Postage exp.	\$728.44	
Group total:		\$1,607.25
Capital expense		
Equipment, supplies exp.	\$5.74	
Group total:		\$5.74
General expense		
Benevolence	\$175.00	
Executive exp.	\$46.84	

Insurance, corporation	\$835.92	
Bank service charges	\$27.60	
Group total:		\$1,085.36
KWARC Club Meeting expense		
Equipment exp.	\$153.60	
Speaker certificate exp.	\$26.45	
Group total:		\$180.05
VE3KSR voice repeater expense		
KSR telephone exp.	\$209.65	
KSR new equip. exp.	\$2,094.93	
Group total:		\$2,304.58
VE3RCK voice repeater expense		
RCK telephone exp.	\$182.73	
Group total:		\$182.73
Special event expense		
COARF fleamart exp.	\$200.00	
Banquet exp.	\$56.00	
Group total:		\$256.00
VE3IC club radio station expense		
IC QSL card exp.	\$40.00	
Group total:		\$40.00
VE3RBM voice repeater		
RBM new equip exp.	\$436.80	
Group total:		\$436.80
Expense total:		\$6,098.51
Revenues less expenses		\$2,645.21
New Balance:		\$2,645.21

If anyone has any questions regarding the clubs finances or the above statement, please contact the KWARC Treasurer Dave Schwartz VA3DGS at treasurer@kwarc.org or by land-line at 884-3594

Canadian IRLP Nodes Sorted by City

Foreign nodes will be printed next month

186	VE6KJM	Airdrie	AB	281	VA3SCR	Innisfil	ON	125	VE7FFF	Prince George	BC
228	VE3SEX	Almonte	ON	283	VA3SCR	Innisfil	ON	121	VE7DQC	Prince Rupert	BC
206	VE1WRC	Amherst	NS	139	VE7RZJ	Invermere	BC	126	SARA	Province Wide	AB
258	VA2RLP	Baie-Comeau	QC	141	VE7RTS	Kamloops	BC	234	VE2REA	Quebec City	QC
256	VE2TPE	Baie-Comeau	QC	108	VE7TSI	Kamloops	BC	190	VE6LT	Red Deer	AB
128	VE6MPR	Banff	AB	275	VE3KBR	Kingston	ON	122	VE6TE	Red Deer	AB
218	VA3EWC	Barrie	ON	241	VE3RBM	Kitchener	ON	155	VE5WM	Regina	SK
209	VE3BIP	Belleville	ON	127	VA6IRL	Lethbridge	AB	119	VE7UHF	Richmond	BC
277	VE3RWN	Bethany	ON	185	VE6COM	Lethbridge	AB	136	VE5CC	Saskatoon	SK
290	VA3RVU	Brampton	ON	211	VE1WY	Lindsay	ON	133	VE5CMR	Saskatoon	SK
268	VE3DJD	Burlington	ON	240	VE3SUE	London	ON	135	VE5SKN	Saskatoon	SK
238	VE6LH	Calgary	AB	109	VA7MAR	Mackenzie	BC	233	VE3KD	Sault Ste. Marie	ON
120	VE6RPT	Calgary	AB	191	VE7RMR	Maple Ridge	BC	230	VO1KEN	St. Johns	NF
129	VE6WRT	Calgary	AB	223	VA3CTR	Markham	ON	221	VE3TST	Stittsville	ON
181	VE6XZ	Calgary	AB	138	VE5MLR	Meadow Lake	SK	170	VE4SRR	Swan River	MB
123	VE6ZV	Calgary	AB	180	VE6MHU	Medicine Hat	AB	157	VE5SCR	Swift Current	SK
131	VE6RJZ	Canmore	AB	262	VE3NUU	Monkland(Tmp)	ON	142	VE7RAM	Tappen	BC
149	VE6TOT	Canmore (test)	AB	255	VE2BRR	Montreal	QC	200	VA3LU	Thunder Bay	ON
203	VE1CRA	Charlottetown	PEI	257	VE2RJS	Montreal	QC	216	VE3IRL	Toronto	ON
102	VE7RNA	Chemainus	BC	113	VA7LPG	Nanoose Bay	BC	227	VE3MOT	Toronto	ON
116	VE7RAP	Comox	BC	207	VE1KK	New Glasgow	NS	229	VE3PNO	Toronto	ON
107	VE7MFS	Coquitlam	BC	236	VO1AAA	New Harbour	NF	245	VE3RAK	Toronto	ON
232	VO1BWP	Corner Brook	NF	249	VE3KR	Nobleton	ON	247	VE3RPT	Toronto	ON
261	VE3EI	Cornwall	ON	134	VE5RAD	North Battleford	SK	202	VE3ULR	Toronto	ON
260	VE3PGC	Cornwall	ON	250	VE3DPL	Norwich / Delhi	ON	210	VE3ADT	Toronto (Milton)	ON
166	VE7CAP	Cranbrook	BC	224	VA3BJD	Oakville	ON	237	VE1II	Truro	NS
124	VE6SBR	Edmonton	AB	219	VE3OAK	Oakville	ON	100	VE7RHS	Vancouver	BC
175	VE4FFR	Flin Flon	MB	265	VA3MME	Omeme	ON	101	VE7URG	Vancouver	BC
222	VE3KNA	Franktown	ON	270	VE3ORX	Orangeville	ON	140	VA7RDX	Vanderhoof	BC
225	VE9ACP	Fredericton	NB	215	VE1BAS	Orleans	ON	106	VA7OKN	Vernon	BC
201	VE9ARZ	Fredericton	NB	204	VE2CRA	Ottawa	ON	105	VE7RVN	Vernon	BC
130	VE6TRC	Ft. McMurray	AB	213	VE3YYS	Ottawa	ON	117	VE7RIA	Victoria	BC
235	VO1HHR	Grand Falls	NF	214	VE3XTX	Owen Sound	ON	104	VE7RMT	Victoria	BC
110	VE7RGF	Grand Forks	BC	118	VE7PQD	Parksville	BC	103	VE7VIC	Victoria	BC
146	VE6LGL	Grande Prairie	AB	145	VE6PRR	Peace River	AB	243	VE3WFM	Waterloo	ON
208	VE1WN	Greenwood	NS	114	VA7HAM	Penticton	BC	150	VY1RW	Whitehorse	YT
226	VE3OVQ	Guelph	ON	115	VE7REE	Penticton	BC	217	VA3BBB	Windsor	ON
151	VY1RHJ	Haines Junction	YT	242	VE3SY	Petersburg	ON	295	VA3UUU	Windsor	ON
205	VE1NSG	Halifax	NS	111	VE7BHI	Port Alberni	BC	165	VE4UMR	Winnipeg	MB
246	VE3MUS	Huntsville	ON	112	VE7KU	Port Alberni	BC	162	VE8NWT	Yellowknife	NWT
280	VA3SCR	Innisfil	ON	137	VE5IOU	Prince Albert	SK	160	VE8YK	Yellowknife	NWT

Our First Anniversary with IRLP

by Paul Cassel VE3SY



It is 1 year ago this month that KWARC announced our first IRLP node on VE3RBM. At that time there were just 63 nodes on the air and we were node 64.

There has been a lot of water under the bridge since then. The nodes continue to grow now with close to 400 available around the world and new countries coming on line almost weekly. Sweden,

South Africa, Dominica, Trinidad, Antarctica, England, New Zealand, Australia and of course Canada and the USA including nodes in the NWT, Alaska and Hawaii.

Since VE3RBM went on the air in late March last year your IRLP host has added two additional nodes. For those on VHF only, IRLP, was added to VE3WFM on 147.090 this winter. John VE3AMZ operates this repeater from his home and all are welcome to make use of it. No Tone Squelch is required to access John's repeater.

Another VHF node operates from my home QTH on a simplex frequency of 147.570. This node requires a PL of 131.8 to access the IRLP. Access codes

are the same on all 3 nodes.

ACCESS CODES

Short cuts to access IRLP are as follows.

Dial **22** to connect with Reflector 2

Dial **00** to disconnect from any connection

For node to node dial the node number adding a 0 to connect. Example: to call node 240 in London you would dial 2400, When completed dial **00** to disconnect.

If you have any problems with the IRLP contact the author by email at ve3sy@kwarc.org or by land-line at 634-513

Enjoy IRLP and pass the word.

Paul VE3SY

Membership Form Please pass on to a non-member

One month prior to expiring the top line on your label will read **"Expires soon mm/yy. Please renew"** where mm/yy is the month/year of expiry. If you miss the first reminder the next months label will read. **"Expired mm/yy. Last bulletin"**. Those members who receive their Kilowatter via the clubs Web site will start to receive a bulletin by mail when their membership gets close to expiring. Members who do not renew at the meeting in which their membership expires will receive a personal follow-up mailing reminding them of what they are missing.

This will be the first year of renewals on the new system so a few glitches may occur. Please notify your treasurer of any discrepancies that may occur.

Please cut out the following renewal form and enclose it with your payment as your renewal date comes due.

PLEASE MAIL TO: Kitchener-Waterloo Amateur Radio Club Box 34012 Highland Hills Postal Station; Kitchener, Ontario N2N 3G2	
First Name _____ Call: _____	Last Name: _____
Address1: _____	Address2: _____
City: _____ Postal Code: _____	Email Address: _____
Phone Number: (_____) _____ - _____	Birthdate: _____ Month _____ Day _____
This is a [] RENEWAL or [] NEW APPLICATION	Kilowatter Preference [] MAIL [] From WEB
<input type="checkbox"/> Full Membership @ \$20.00 + \$5.00 mailed Newsletter <input type="checkbox"/> Family membership adder @ \$5.00 <input type="checkbox"/> Seniors Membership @ \$10.00 + mailed Newsletter <input type="checkbox"/> Student or Challenged @ \$10.00 + \$5.00 Newsletter	<input type="checkbox"/> Associate (non voting) @ \$10.00. I am a member of the _____ Club.
NOTE: Phone Patch, IRLP and URL Network access are included FREE with each class of membership	
Comments: _____ _____	
Total Amount Enclosed: \$ _____	Your Cheque Number : _____

OUR SPONSOR

 <p style="font-size: 1.2em; font-weight: bold; margin: 0;">INFORMATION GATEWAY SERVICES</p> <p style="font-size: 0.8em; margin: 0;">Kitchener-Waterloo Cambridge and Guelph</p>	<p style="margin: 0;">Information Gateway Services (Kitchener-Waterloo) Inc. 151 Frobisher Dr., Suite E-118, Waterloo, Ontario, N2V 2C9</p> <p style="margin: 10px 0 0 40px;">Owner Operator : Don Sinclair VE3ICD</p>
<p style="font-size: 0.8em; margin: 0;">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.</p>	
SPECIAL OFFER TO KWARC MEMBERS	
<ol style="list-style-type: none"> 1. No activation fee on standard personal accounts for KWARC members. A \$25.00 saving 2. \$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 (<i>this popular package has just been increased from 20 hrs</i>) 3. UNLIMITED FREE time from midnight until 7am 4. One free KWARC e-mail address urcall@kwarc.org for KWARC members <p style="font-size: 0.8em; margin: 0;"><i>No coupons or other discounts can be used in conjunction with these special offers to KWARC members ONLY.</i></p>	
For complete details, call Don Sinclair VE3ICD at 884-7200	

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