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January 2004

Quinte Amateur Radio Club Inc. Newsletter

PO Box 23039 BELLEVILLE Ontario K8P 5J3

NOTICE OF MEETING:

DATE / TIME: **January 21, 2004 @7:30PM**

LOCATION: Loyalist College (Pioneer Building) Room P-2

PROGRAM: There will be a display and discussion on what is new in radio equipment. If you have a new model radio please bring it to the meeting. If you are thinking about purchasing a new radio this will be a good opportunity to find out the likes and dislikes from those who actually use them.

Club Repeater: VE3QAR 146.985 MHz.
2 meter net: Tuesday 7:30 PM on VE3TJU 146.730
QARC HomePage http://www.qarc.on.ca
QARC HomePage http://www.qarc.on.ca/ provided free of charge by:
Lakeshore Internet Services, 199 Front St, Suite 113
Belleville K8N 5H5 (613) 962-9299
Monthly Meetings: 3rd Wednesday 7:30 PM Loyalist College
(Pioneer Bldg.) Room P-17
Hams 'n Eggs: SATURDAYS 8:00 AM Quinte Restaurant 135 Cannifton Road
Foxhunt: 2nd,4th & 5th Wednesdays at 7PM. Check in on VE3QAR for details.
RADIO AMATEURS OF CANADA ADDRESS:
Radio Amateurs of Canada Administrative Office 720 Belfast Road, Suite 217
Ottawa, Ontario K1G 0Z5
Phone: (613) 244-4367 **Fax:** (613) 244-4369.
E-mail: rachq@rac.ca

QARC EXECUTIVE

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Quinte Amateur Radio Club Minutes for
November 19th, 2003

Mike, VE3VMP Secretary, QARC

The meeting opened at 7:35 pm by our President, **Peter VA3PKH**. Peter reminded the membership that next month is our annual Xmas dinner at the Northway Restaurant. Call Peter to let him know you will attend and also you must decide in advance your choice of dinner.

Coming Events:

Dec. 27th, 2003 – Canadian Winter Contest
December (all month) – VC3F – Special station to commemorate Flight
January 1st 2004 – Straight key Night
January 30/31st 2004 – Marmora/Bancroft Sled Dog Races
February 7/8th 2004 – XYYVD Contest
February 28th 2004 – Burlington Flee Market
April 17th Whitby Ham Fest

Instead of the usual guest speaker, **Eric VE3GSI, Dave VE3BIP, Al Law VE3LAW, and Mike VE3VMP** volunteered to talk about some of their recent experiences.

Eric VE3GSI topic was on Power Pole Connectors. This method of connecting power to amateur radio equipment is becoming a standard with ARES and RACES and hams in general. Eric gave a demonstration on how to connect a #14 wire to the connector. There is a separate connector for each wire. One is coloured Red and the other Black. Eric explained an easy way to remember how to know which side to connect the Red connector. This is the trick: holding both connectors in your hand and looking from the back of the connector – the end that the wire is assembled - the Red Connector goes on the Right. Connectors are rated for a particular ampere load and are available from 15 amps to 45 amps. The connectors cost about $20 for 20 pair of connectors. There are various size packages available. One word of caution is to not over solder connectors because it will not fit into the holder.

Al VE3LAW talked about a new program by **ARRL** to verify communication between Amateurs by using any logging program on your PC. This is a major ARRL initiative for Amateurs interested in confirming contacts for all of the numerous awards that are available, DXCC, WAS etc., without having to send or receive QSL cards. The program is called LOTW that stands for **L**og **o**f **t**he **W**orld. Everyone knows how the process works today; you either send your card directly or via a QSL Bureau, such as the one RAC manages. Of course, there are no guarantees that the card will arrive or that the other party will reply. Cost is a big factor. So ARRL is attempting to overcome the obstacles of mail delivery and the cost of postage by having you send in your log electronically via the Internet. If you send your log to ARRL and everyone else sends in their logs to ARRL – then a computer will match the logs or contacts and if a match is made – you get credit for that contact towards the various awards. And you do not have to send QSL cards anymore for confirmation towards awards. However, it is still nice to receive interesting or rare DX and show them in your shack.

The program has been beta tested for about 6 months. It formally started September 15th 2003. They now have 4350 users that already received confirmations. ARRL has received over 25 Million contacts and about 16,000 logs so far. You do not have to be a member of ARRL to use this service!! To take advantage of this service you must have an electronic logging programme that supports ADIT – Amateur Data Interface Format. You must also send a copy of your license to ARRL. They will send back the information. ARRL will charge 25 cents per confirmation - not bad! One more important thing to remember – the log start times, for confirmation, must be within 5 minutes. If it is not, the confirmation is not considered a match and you will not receive credit.

Dave VE3BIP talked about the Wireless Internet again. This is becoming a very popular topic these days. The satellites in the GPS system are used to provide this service. Dave mentioned again that the 802 11B is the typical standard for wireless. Atypical wireless service costs about $100 per month and another $1000 approximately to install. You can communicate from your home or car to a Digital Repeater and anyone in range of the repeater can communicate. You can even link one digital repeater to another for greater distances. **Al VE3LAW** mentioned that a service such as this is already being provided or available in the county by KOS! The cost is about $89 per month and about $1000 to install. The node is located at Lake-on-the-Mountain. Also someone mentioned at the meeting that Campbellford also has a similar system.

Mike VE3VMP talked about his new 44 ft telescoping tilt-over AL tower project. This tower became available in mid June from Peter Beaton VE3GMY in Tweed. I decided I would buy it and finally implement a long time dream. I have discussed putting up a tower with my neighbors in the past and they did not objections. I have had a vertical that extends over 50 feet for years and no one complained. Just over a year ago I put up a 25-foot mast that supported my Cushcraft A148-20T 2 M vertical and horizontal Yagi antenna controlled by a TV rotor. This is near the front of the house and quite noticeable to anyone in the neighbourhood, and I never received any complaints.

What I was concerned about with my HF tower was the municipal requirements. I didn't know if I could put up a tower in my area or not. So the first person I called was the Chief Building Inspector of Belleville, Reg McCurdy. I explained that I am a Radio Amateur and would like to put up a 44 ft tower to improve my communications. I first asked if I am allowed to put up a tower. (I was expecting a NO). He said YES, you are allowed. I explained to him some details of the project that I will have to dig a large hole to support this tower. He said that if my tower was going to be higher than 54 feet 6 inches I would need a building permit to dig the hole. I said that it would be around 50 feet with the mast extension, therefore, no building permit was required. He asked me if I asked our neighbors about this and I replied yes and no problems. He asked me to call the Planning Dept to make sure that I meet the Planning Code. So the Planning Code for the City of Belleville is that the farthest extremity of the elements of the beam must be within one meter of your property line. That is the only code out side the he ight of the tower.

Needless to say I was very pleased and started looking around for a small beam that would fit on my small lot. (If I were not able to put up a tower **Dave VE3UGT** was going to buy it from me at the same price I paid that was less than $400.00). I did not want to over lap the roof of my house. That was my own personal requirement. I

managed to find a small antenna that just fit my lot. It had an 11.5 ft boom and the longest element was only 26 feet, with a turning radius of 13.5 feet. This antenna fit perfectly in my small space. It turned out to be manufactured by Force 12 model # 12 C-3SS. It is a 6 element beam with 2 elements for 20, 15 and 10. Since I just got a new Radio last year that had 6 M I decided to also buy a 6 M beam also a Force 12 EF-606. It also has 6 elements and is tuned for 50 – 50.700 Mhz. I already purchased a Ham IV Rotor years ago (when funds were available) along with a DCU-1 as the controller, hoping that some day I will have a tower. The antenna was going to take 8 to 10 weeks to get so I had lots of time between the end of June and late August and September to get organized. I consulted many hams in the area for all kinds of advice and what are things that I will have to look out for.

I had several delays especially the one inch diameter threaded rods that are 5.5 feet long took a lot longer to get than I expected. I ordered them directly from Heights Tower in Florida. I wanted to ensure I was using exactly the right components to support the tower. The hole was dug by hand and took between 6 and 8 hours of actual time to dig over about 6 days. My soil was absolutely clean with no large rocks or obstructions. The size of the hole was 3.5 ft x 3.5 ft x 6 ft deep**. Dave VE3UGT** built a rebar cage to fit the hole. I used 2.25 cu meters of 4000 PSI concrete. I had lots of helps from club members. It only took about 45 minutes to pour the concrete from the cement truck. The tower sits on an optional 4 ft stand, making it more convenient to operate the tower. The stand also raises the tower by 4 feet. (The tower itself is 40 ft and the stand makes it 44 ft). The 4 ft stand was connected to the supporting rods about 3 days later. I allowed the concrete to cure for about 4 weeks before adding the tower to the stand. The tower itself was all in one piece and it was a matter of four of us lifting the tower to the hinged base support. **Ron VE3IVC** helped in assembling the Rotor and Mast to the tower.

Next I started to assemble the antennas. I started of outside but I quickly found that it was more convenient to assemble the elements in my basement, then take them outside and assemble to the boom. Again I had lots of help here from **Dave VE3BIP and VE3UGT**. Finally on November 1st 2003 the two antennas were assembled to the mast, exactly one month after the concrete was poured. I dug a one ft trench around the tower and directly to where the cables were going to enter the house. The ground wire was laid directly in the ground and the coax and rotor cables were feed through a 5 in "big O" that have caps on both ends to prevent water, etc getting in. I used the **Syd Horne VE3EGO** method of grounding the tower and connecting the tower ground to my house ground so that they are on the same potential. I used three 10 ft ¾ inch copper clad ground rods driven in at a slight angle. The rods went into the ground easily with the help of my friend **Miles**. I also used one of those new electrical plates that is now in the building code. One at the tower and another just outside the entrance to the house. These plates are about 20 in x 16 in and about a ¼ inch thick. I was told they only have to be buried 18 in, but I buried them 30 in. I used 2/0 stranded copper wire to connect the tower to the ground rods using a continuous loop around the tower. Then, I used a 7/8 in flexible copper tubing to connect the tower ground to the house ground.

The coax leads are terminated on an Alpha Delta Coax switch providing protection to my rig via gas tube. The rotor leads also are connected via protectors. The coax I used was called Bury-Flex by Davis #9914F type, double-shielded, low loss polyethylene

foam with a polyethylene jacket and a stranded center conductor typically used for direct burial.

Needless to say I'm a happy camper. I have competed in several pile-ups and was heard on the second try if not the first. I am well pleased, and thanks to all who helped with this project.

By the way The tower cost just under $400 but by the time I finished the project it cost just under $4000.00!@#$%^>… This tower in the US sells foe $4000.00 alone. What a bargain!

The traditional coffee and donuts were available during the meeting. The meeting adjourned at 9:40 pm.

Comments during and after the meeting were that we should have more of this kind of meeting. There were 15 in attendance.

Computer Problem at Don's VE3DQN

Don had a hard drive fail in his computer. He has requested that all members please either e-mail or phone with your expiry month of your QARC membership. Also due to Don's computer problems there will not be a treasurers report this month.

IRLP News

There are now 907 IRLP station nodes worldwide including, Canada, U.S.A., United Kingdom, Sweden, Norway, Germany, Netherlands, Belgium, South Africa, Botswana, Netherlands Antilles, Trinidad, Barbados, Dominica, Jamaica, Bermuda, Cayman Islands, Curacao, Grenada, Mexico, Ecuador, Australia, New Zealand, Japan, India, Antarctica.
Full Details: www.irlp.net

VE3STP MINI NET. Youngest Ham.

On Friday 26 December 2003 the, mininet was run by Nathan MacIsaac VA3NCM, age 13, in grade 8, only several weeks after being assigned his certificate and call sign. Consider the age difference between Monday night Net controller Bill ve3aas and va3ncm is like a lifetime. Congratulations Nathan! Ve3stp the home page - www. ve3stp.com

New quick charge NiMH Batteries

The Rayovac company has announced a new charger that it says is capable of fully restoring a specially designed Nickel Metal Hydride cell in only 15 minutes. Dubbed the I-C3, the new rechargeable cells and charging system uses Rayovac's In-Cell Charge Control technology that puts the control of recharging into the battery instead of the charger. The company says that doing this offers significant performance and convenience advantages over existing rechargeable and disposable battery systems.
More info: www.rayovac.com

RABC recommends 220-222 MHz be transferred to the Mobile service

Use it or lose it! We have all heard that story. Canadian Radio Amateurs make very little use of the two MHz at the bottom of the 220-225 MHz band. Industry Canada can monitor usage and is well aware of this fact. US Amateurs were forced to give up this spectrum in the early 1990s. Spectrum in the VHF range is very congested outside the amateur bands, and mobile service users such as the RCMP and the Railway Association of Canada have well documented needs for this spectrum. Their justification is based on harmonization with the USA, with increased demands for public security communications, and on the unique propagation characteristics of the 220 MHz band. Other public safety bands in the 700-800 MHz range have entirely different propagation characteristics. The Radio Advisory Board of Canada (RABC) has been studying the needs of various services over the past 18 months, and has decided to recommend to Industry Canada that:

1. The 220-222 MHz band be transferred from the amateur to the mobile service.
2. Amateur repeaters in this portion of the band would be grandfathered to continue operation for a number of years, with the number to be decided by Industry Canada.
3. 150 kHz of spectrum in the 220-222 MHz band be designated as public service spectrum to be shared by amateur and mobile services for special public safety and disaster communications applications.
4. The band 219-220 MHz be allocated on a secondary basis to the Amateur service in Canada, which would be in harmony with a similar allocation in the USA.
5. The band from 222-225 MHz remain as a primary exclusive amateur allocation.

Following consultation with Canadian amateurs in a survey conducted in July 2002, RAC as a member of the RABC, has vigorously opposed these proposed changes without success. In a recent RABC ballot, RAC was the only dissenting voice.

Here are RAC's comments to Industry Canada.

Radio Amateurs of Canada (RAC) does not approve the response of the RABC in this ballot. RAC understands the increased spectrum requirements of the services represented by the other RABC sponsor members in the VHF portion of the spectrum. However, the Amateur Service also has spectrum requirements for expansion, and its 220 -225 MHz band is the only primary allocation available to the amateur service between 148 MHz and 24 GHz. In addition to relieving the pressures on the congested 144-148 MHz (Primary) and 430-450 MHz (Secondary) amateur bands, the 220-225 MHz band would be used for amateur service emergency communications, particularly as its propagation characteristics bridge those provided by the 144 and 430 MHz bands. Development of the 220 MHz band is growing as equipment for the amateur service at 220 MHz increasingly is becoming available.

Industry Canada must now take this advice, decide on a course of action, and in all likelihood conduct a public consultation before issuing a decision. The prospects do not look good. This could be the first loss of amateur spectrum in Canada for many years. Canadian amateurs cannot complain. The spectrum is valuable, and we do not make good use of it. Those are the facts. In spite of all the good work we do in emergency and disaster communications, our case for retention is weak. You've heard it before. USE it

or LOSE it! Maybe this RABC recommendation will make us take the saying more seriously.

AO-27 returns to operation

The AO-27 Command Team reports that as of 29 December 2003 UTC, a new schedule has been uploaded to AO-27 after tracking down several bugs in the on-board schedule state machine. The schedule starts 3.5 minutes before the sub-satellite point crosses Latitude 39.0N on an ascending (South to North) pass. At that point AO-27 will turn on for 1 minute of digital telemetry download followed by 6 minutes of analog repeater operation. In addition to the analog repeater operations in the evening, there will also be one-minute digital telemetry transmitted in the morning starting when it crosses Latitude 39.0N on a descending pass.

When there is a better understanding of the battery condition, the analog time will be increased.

Your help is needed logging TLM from AO27. Please visit the Logging AO-27 Telemetry page, www.umbrasi.com/AO27/tlm.shtml for directions in getting started.

(AO-27 Command Team via AMSAT News)