# Q R M

*November 2001*

Quinte Amateur Radio Club Inc. Newsletter

PO Box 23039 BELLEVILLE Ontario K8P 5J3

## NOTICE OF MEETING:

**DATE / TIME:** **Wednesday, November 21 @ 7:30 PM**

**LOCATION:** Loyalist College (Pioneer Building) **Room P-17**

**PROGRAM:** Our guest speaker will be Ron Walsh VE3GO Assistant Director of Ontario North for Radio Amateurs of Canada. His topic will be what RAC does for the Canadian Amateur.

**Club Repeater: VE3QAR 146.985 MHz.**
**Bay Bridge Net (QARC & PERC) on VE3TJU 146.730 MHz Tuesday 7:30 PM**
**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 Northway Restaurant 205 N. Front St
**Foxhunt:** Sundays at 2 PM. 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.
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# QARC EXECUTIVE

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**PAST PRESIDENT:** Dave Ackerman VE3UGT 962-3991 (E-mail: ve3ugt@rac.ca)

# Christmas Dinner

Our December meeting will be at the Northway Restaurant on Wednesday the 19th. Please contact Don VE3DQN if you plan to attend. The menu was in last month's newsletter. They asked if anyone wanted the prime rib could they let them know ahead.

# IRLP Comes To Belleville

By Dave Ward VE3BIP

The Internet Radio Linking Project, commonly known as IRLP, is a new amateur radio mode that uses a combination of VHF and UHF radios and the Internet. It provides the capability to communicate around the world at virtually any time of the day at any time of the year. The system was created by a Canadian ham, David Cameron, VE7LTD.

The complete IRLP system consists of several hundred nodes scattered around the globe. These nodes connect to each other via the Internet. As of this writing there are 224 nodes distributed as follows. Antarctica 1, Australia 22, Caribbean 3, Britain 6, Canada 84, New Zealand 1, United States 99, and 8 Reflectors. Several new nodes are being added every week.

There are two basic types of nodes, station nodes and reflectors. A station node provides a gateway between the Internet and the RF world. On the RF side it is a standard VHF or UHF radio or repeater. On the Internet side it is a standard PC running the Linux operating system and the special IRLP software. During a QSO, the RF signal travels from the user's radio to the IRLP radio. The audio from the IRLP radio is fed to the PC sound card where it is digitized and converted to small packets of speech. These packets travel across the Internet to the IRLP node at the far end. At the far end the packets at reassembled into a continuous audio stream and fed back to the sound card. The sound card at the far end feeds the audio to the microphone of the radio where it is rebroadcast.

A reflector node operates differently, it is very similar to telephone conference bridge. With station nodes there is a single connection which connects two stations. In the case of a reflector any number of stations can be connected. When a node that is connected to a reflector receives an RF signal it creates the voice packets as before and sends them across the Internet to the reflector. At that point the reflector duplicates the voice packets and sends one copy to all the other stations that are connected. In this way a single node broadcasts to all others.

## Operating the System

We have recently added an IRLP node in Belleville. It is currently operating on a simplex frequency 147.570 but by the time you read this it should be operating through our local repeater VE3QAR.

In order to connect to any node in the system use your DTMF keypad to enter the three-digit node number followed by zero. For example the IRLP node in Kingston is number 275. To connect to the Kingston node enter 2750. To disconnect from a node use your DTMF keypad to enter the three digit node number plus a 1 e.g. to disconnect from Kingston enter 2751. A complete list of nodes is available from the IRLP web page at

http://www.irlp.net.

Normally when you connect to a node there is a 20-minute timeout, that is if you do not transmit for 20 minutes the link will automatically disconnect. This can be a problem when listening to a net on one of the reflectors. To overcome this problem you can connect to a reflector with no timeout by entering the 3-digit reflector number plus a 2 e.g. enter 9202 to connect to reflector 2 with no timeout.

Once you have connected to another node or reflector you operate more or less the way you operate on your local repeater. For instance, to put out a general call just say "VE3BIP in Belleville, Ontario listening". Notice that you should announce your location as well as your call sign since you could be speaking to any location in the world. Another thing to be aware of is the space between transmissions. You should always leave a second or two between transmissions for a couple of reasons. First, there is some delay in the packet system and some time is required to allow the packets to clear the through the Internet. Second, if you are connected to a reflector, you should leave a few seconds of silence to allow another node along the line to transmit the tones required to drop the link.

There are a few special features that have been added to the Belleville node and I plan to add others in the future. You can enter # or HELP (4357) to hear a brief description of how to operate the node. You can enter *11 to hear the current status of the node.

You can get more information on the status and operation of the Belleville node from the QARC web page at http://www.qarc.on.ca and follow the IRLP link.

Have fun!

# National Traffic System

Ontario Section Newsletter - compiled by Jean VA3FW

1. The National Traffic System is a well-organized and efficient means of sending messages via Amateur radio. All Amateurs are invited to participate in the NTS. To learn more about traffic handling tune to 3.742MHz at 1900 hours local time, where the Ontario Phone Net meets daily, everyone is welcome, or check out the link on the RAC web site to the web page of VE3BDM on traffic handling. Other NTS nets in Ontario - All net times are local times.

Phone nets -

Toronto Open Line Net (OLN) - daily on 2M repeater VE3RPT at 1830 Hours

Kingsmere Traffic Net (KTN) - Monday, Wednesday, Friday, on 2M repeater repeater VE3KPG (Ottawa) at 2100 hours. Ontario Phone Net - daily, on 3.742MHz. at 1900 hours.

CW nets -

Ontario Section Net (OSN) - daily on 3.667MHz at 1900 and 2200 hours

Ontario Beaver Nets (OBN) although not official NTS nets, perform a key function, training in CW operation, particularly at slow speeds.

OBN slow speed - daily on 3.645 MHz at 1815 hours

OBN fast speed - daily on 3.645 MHz at 1830 hours

All Amateurs are invited to try their hand at traffic handling either on CW or phone. In the event of a widespread emergency anytime, check both 3.742MHz and 7.153MHz the OPN could be on either or both of these frequencies for the purpose of handling traffic.

# Sailing Around the Globe

Ham radio's senior sailor David Clark, KB6TAM, set sail this week from Trinidad to complete the final leg of the adventure of his lifetime. Clark, who is 77, is attempting to become the oldest person to sail solo around the globe. He plans to arrive back in Ft Lauderdale, Florida, on December 7. Clark has been using Amateur Radio aboard his vessel to keep in touch with his family and friends.

Accompanied by his dog, Mickey, Clark departed South Florida in December 1999 in the 44-foot steel-hulled sloop, the Mollie Milar--named for his mother. Mickey was lost and Clark himself nearly died after the vessel sank last February off the coast of South Africa. Not one to give up that easily,

Clark was able to purchase another sailboat--a smaller one that he named Mickey--and resumed his quest in April. He's been sitting out the Atlantic hurricane season in Trinidad, where he arrived in July.

Clark was expected to be checking in on the 20-meter Seafarer's Net on 14.313 MHz. The final leg from Trinidad to Fort Lauderdale is approximately 1500 miles.
(ARRL Letter)

# SHARING SPECTRUM

(From the ARRL Letter - Nov 2, 2001)

Amateur Radio operators can get mighty territorial when they perceive that some other radio service is intruding upon "their" turf. What many hams often don't understand, however, is that Amateur Radio is a secondary service in the US on several popular bands or subbands. As such, it's subject to interference from primary radio service occupants and, by law, must avoid interfering with them. And, of course, ham bands are not all the same everywhere in the world.

Hams share most of their spectrum--especially the UHF and microwave allocations--with other users, typically the US Government and Fixed and Mobile services. The popular 70-cm band, 420-450 MHz, is a good case in point, says ARRL Field and Regulatory Correspondent Brennan Price, N4QX. "Amateur use of the 70-cm band is secondary to government radio location services in the US, so hams must tolerate interference from the primary service and may not QRM it," Price explained. No operation in the 420-430 MHz band is permitted north of Line A, which extends just south of the Canadian border from Maine to Washington State. 50-W output power limitations apply to operations near certain US military installations as documented in Section 2.106, US Footnote 7 and mentioned in The ARRL's FCC Rule Book.

Price notes, however, that military use of the band is not confined to these areas, and the band is utilized aboard aircraft. "We occasionally receive inquiries from amateurs who complain of 70-cm disruptions when military planes fly overhead," said Price, who also serves as the ARRL Monitoring System coordinator. "We have every reason to believe that the current spate of widely heard disruptions is due to high-altitude airborne operations by the band's legal, primary occupant--the US Government." The 420-430 MHz segment is allocated on a primary basis worldwide to the Fixed and Mobile (except Aeronautical Mobile) services.

Two meters--144 to 148 MHz--is an exclusive allocation in ITU Region 2, which includes North and South America. US hams who have taken along an H-T while vacationing in Europe or elsewhere in Region 1, however, know that the 2-meter band in that part of the world is 144-146 MHz. In Region 3, hams have exclusive access to 144-146 MHz and share 146-148 MHz on a co-primary basis with Fixed and Mobile Service stations.

Six meters--50 to 54 MHz--is an exclusive ham allocation in Regions 2 and 3, but the band is allocated exclusively for broadcasting in Region 1--although certain countries do allow limited 6-meter operation.

The sharing news is much better on the higher HF bands. The 20, 17, 15, 12 and 10-meter bands are allocated to the Amateur Service on an exclusive basis worldwide--with a few minor exceptions for the high end of 20. On other HF bands, some sharing occurs.

On 30 meters--10.1 to 10.15 MHz--hams are secondary to non-US Fixed Service stations throughout. Amateurs must avoid harmful interference to these stations.

The 40-meter band is currently the focus of an effort supported by the International Amateur Radio Union and ARRL to obtain a 300-kHz worldwide exclusive allocation. Most of the world does not have access to the 300 kHz-wide swath from 7.0 to 7.3 MHz that US hams enjoy. In the rest of the world, the upper two-thirds of 40 is dominated by broadcasters. This issue is on the agenda for the 2003 World Radiocommunication Conference <http://www.arrl.org/announce/regulatory/WRC-03/>. One suggested remedy would shift the allocation downward to create a 300-kHz worldwide band at 6.9 to 7.2 MHz.

The 80/75-meter band--3.5 to 4.0 MHz--is exclusive to the Amateur Service in the US. Elsewhere in Region 2 hams have exclusive status from 3.500 to 3.750 MHz and share the rest of the band with foreign Fixed and Mobile services on a co-primary basis. Amateurs in Regions 1 and 3 share parts of the band with Fixed and Mobile. There is no amateur operation allowed above 3.8 MHz in Region 1, which includes Europe. The 1.8 to 1.9 MHz segment of 160 meters is exclusive to US amateurs. Hams in the US are secondary on 1.9 to 2.0 MHz to the primary Radiolocation Service (government and non-government).

# Morse Code on X-Files episode:

(From ARRL Letter, Nov 2, 2001)

Rob Ginkowski, WA6CW, of Hollywood, California, served as a technical adviser to The X-Files star Robert Patrick for an upcoming episode. Patrick's character, John Doggett, was in a hospital bed, paralyzed, and was required to send a Morse code message by tapping his index finger. WA6CW (who also works as an actor) taught Patrick how to tap out the message at about 5-WPM. "He was a fast learner," Ginkowski commented. No word on what the message was, but it might be, "The truth is out there." The episode, entitled "4-D," is scheduled to air Sunday, December 9, on the Fox TV Network.

# Treasurers Report

## MONTH TO DATE

| Revenue | | Expenses | |
|---|---|---|---|
| Membership Dues | $75.00 | Rac Membership | $39.95 |
| Coffee | | Office Supplies | $22.29 |
| 50/50 Draw | $8.00 | Hall Rental | $75.00 |
| Hamfest Income | | News letter printing | $14.44 |
| Interest | $0.16 | Insurance | $544.32 |
| | | Donations | $42.75 |
| Total revenue | $83.16 | Total Expenses | $738.75 |
| | | | |
| | | Month to Date Income | -$655.59 |

## YEAR TO DATE

| Revenue | | Expenses | |
|---|---|---|---|
| Membership Dues | $175.00 | Social Events | |
| Hamfest Income | $300.00 | Post box rental | $77.04 |
| 50/50 Draw | $23.50 | Office supplies | $42.41 |
| Coffee | $10.64 | News letter printing | $28.00 |
| Repeater Move | $0.00 | Door Prizes | $5.00 |
| Interest | $1.07 | Insurance | $544.32 |
| | | Donations | $42.75 |
| | | RAC Membership | $39.95 |
| | | Hall Rental | $115.00 |
| | | | |
| Total revenue | $510.21 | Total Expenses | $894.47 |
| | | | |
| | | Year to Date Income | -$384.26 |
| | | | |
| | Cash on Hand | | $3,557.42 |

# Year End Financial Report

This financial report is for our fiscal year July 1, 2000 to June 30, 2001. As you can see we are up by $94.69. Before we could officially apply to locate the repeater on the CBC tower we needed 3 million dollars liability insurance. This is an increase cost of $112.32. If income stays the same we should still show a profit this year due to the Hamfest.

| Revenue | | Expenses | |
|---|---|---|---|
| Membership Dues | $1,300.00 | Incorporation | $30.00 |
| Donations to Club | $57.50 | Post box rental | $77.04 |
| 50/50 Draw | $44.50 | Office supplies | $314.15 |
| Coffee | $72.89 | News letter printing | $198.77 |
| Repeater Move | $0.00 | Door Prizes | $10.00 |
| Interest | $7.87 | Insurance | $432.00 |
| | | Donations | $75.00 |
| | | RAC Membership | $39.95 |
| | | Hall Rental | $125.00 |
| | | Social Events | $86.16 |
| Total revenue | $1,482.76 | Total Expenses | $1,388.07 |
| | | Year to Date Income | $94.69 |