

## From the Gavel...



The CQWW CW contest is now over, and I can't get over how fast the average CW exchange was for this contest. Speeds hovered around 35 wpm. Each time contact was made,

it was over in a flash and on to the next one. As I tuned across the band looking for slower operators, it became apparent that they were few and far between. It was obvious that I would need a lot more practice to reach these speeds.

While searching the Internet for various code practice software, I ran across this site, [www.g4ilo.com](http://www.g4ilo.com). It has a number of free Windows based software for learning code, simulating CW Contest exchanges and predicting HF propagation. They are called MorseGen, MorseTest and VOAProp respectively. I highly recommend you download and try these programs.

MorseGen is a program that can generate Morse Code for practice purposes. It can be used to teach yourself CW using the Koch Method and can generate audio files that can be played on a CD player or MP3 player. With the Koch method you pick a high speed, e.g. 30 wpm and start off by copying only 2 letters repeatedly. When you can reliably copy them, you increase to 3 letters and so on one letter at a time until you go through the whole Morse table.

MorseTest is a Morse Code proficiency builder that is loosely modeled on a CW contest. It is not really a contest operating trainer. Subsequent to G4ILO developing MorseTest, VE3NEA released a very similar looking program called MorseRunner which is a much more realistic contest simulator. It can be found at <http://www.dxatlas.com/>. With

either of these programs you can run your own contest any time without actually being on the air. A great way of getting over the CQ jitters.

VOAProp was written to show what HF band propagation should be like on a particular day on a particular band. VOAProp uses the VOACAP forecasting software, and provides a simplified graphical interface to it. It makes it easier to use VOACAP to display propagation without getting bogged down in providing complex detailed information. The program obtains the required real-time solar data from WWV over the Internet automatically. Propagation is shown as expected signal strengths to be received from different parts of the world, plotted on a world map for each band. VOAProp can also display daily point-to-point propagation charts showing the best frequency and time of day for communication with a particular location.

VOAProp can also be used as an IARU amateur bands beacon monitor. The program displays icons on the map which shows which beacon is currently transmitting, together with the expected received signal strength according to the predicted conditions.

Well, it is time to stop talking about it and start using these programs. I got to get ready for the RAC Winter Contest after Christmas. Hope to hear you on the air.

73 ... Rick Brown VE3IMG.

### This Month

2. Commentary
3. Club Calendar
4. One Man's Vision: The Story of the FSU
7. IRLP- Another Canadian Invention
8. The Roving Reporter
9. Minutes of the meeting November 08, 2007
10. Preliminary Assessment of SET 2007
12. RAC Application Form

### Sunday Brunch

Sunday brunches are held on the first Sunday of each month. Time is 9:30AM at Shopsy's, 6986 Financial Drive Unit 5 Mississauga (at the corner of Mississauga Rd and Derry Rd). All are welcome to come out and have an opportunity to chat in an informal setting.

### Club Nets

**2 Metre Tuesday Night Phone Net** Join in on the chatter starting at 8:30PM every Tuesday on the club repeater. Hosted by various net controllers. 145.430MHz Tone 103.5 Minus (-) offset. Contact our VHF Net Manager, **Lorne (VE3CXT)**, if interested in becoming a net controller.

**75 Metre Sunday Night Net** Starts at 8:30PM every Sunday. Hosted by various net controllers. Contact our HF Net Manager, **Michael (VE3TKI)**, if interested in becoming a net controller.

## Commentary



This edition of the newsletter is a bumper edition indeed. For the first time after all these years hear the builders of the Mississauga ARES FSV share their story in detail. Michael and Tony narrate the story from concept to

completion in their unique way. As a bonus they provide pictures to go with the article too. From one man's dream to a reality the journey has been a long and challenging one. Nothing it appears would have stopped the determined team. This story is worthy of being published in the TCA.

In the last few meetings you may have heard about how a team is getting together to put up the IRLP link at the club station. I thought it appropriate to publish a short article on the background and workings of IRLP. This is a tribute to the inventor, a Canadian ham, David Cameron, VE7LTD.

Finally I would like to remind you that MARC will be running an Advanced Course starting on January 7<sup>th</sup>. For those of you who always wanted to get that Advanced qualification, this is your chance. The classes will be run boot-camp style and in ten weeks on the 10<sup>th</sup> of March, you should be ready to breeze through the Advanced exam. Then you can rule the airwaves with a kilowatt shack. Who's to stop you? You will also have a good appreciation of what goes on behind that pretty display and dials. Anyone who wants to become the lord of the airwaves, say "aye".

73

Thomas VA3TMB

**Q:** How many DXers does it take to change a light bulb?

**A:** All of them. One to change it and the rest to argue about whether it counts as a light bulb.

-- Ward N0AX

## Executive Directors

President	Rick Brown, VE3IMG
1st Vice President	Asim Zaidi, VE3XAP
2nd Vice President	William Bressette, VE3WPJ
Treasurer	John (Sr) Lorenc, VA3XJL
Secretary	Dan Goodier, VE3NI
Past President	Dave Harford, VA3DFH

## Club Managers

Membership Manager	Dave Harford, VA3DFH
Education Manager	Earle Laycock, VE3XEL
Basic Theory Courses	Earle Laycock, VE3XEL
Basic Theory Courses	Bob Hawkins, VE3AGC
Basic Theory Courses	Jody Levine, VE3ION
Basic Theory Courses	Don McPhee, VA3BOW
Basic Theory Courses	Basil Burgess, VE3JEB
Basic Theory Courses	Robert Dutton, VE3ZZF
CW Courses	Frank Lamb, VE3HTX
CW Courses	Earle Laycock, VE3XEL
House / Visitor Host Manager	Robert Humphreys, VE3HOW
Newsletter Editor	Thomas Bernard, VA3TMB
Researcher	Kim Cheong, VE3KTC
Net Managers HF Net	Michael Brickell, VE3TKI
VHF Net	Lorne Jackson, VE3CXT
Repeater Manager	Michael Brickell, VE3TKI
Assistant	Bryan Jay, VA3BLJ
Assistant	Bob Boyer, VE3XBB
Assistant	Lorne Jackson, VE3CXT
Assistant	John Duffy, VE3DRZ
Assistant	Asim Zaidi, VE3XAP
Assistant	Tony Champion, VA3QC
Assistant	Robin Stubbs, VE3VVS
Assistant	William Bressette, VE3WPJ
Club Station Manager	Stefan Bejusca, VA3OBR
Assistant	Rick Brown, VE3IMG
Assistant	Asim Zaidi, VE3XAP
Assistant	Alex Malikov, VE3MA
Assistant	Bryan Jay, VA3BLJ
Field Day Manager	Open
Assistant - Documentation	Tony Champion, VA3QC
Assistant - Logging	Jody Levine, VE3ION
Assistant - Refreshments	John Duffy, VE3DRZ
Assistant - Site	Thomas Godden, VE3TWG
Assistant - Press and Publications	Reg Vertolli, VA3JQA
FSV Manager	Dave Stubbs, VA3BHF
Assistant	Sean Conlin, VA3MED
Assistant	William Bressette, VE3WPJ
Programs Manager	Lorne Jackson, VE3CXT
Webmaster Manager (Source Code and DB)	Dave Harford, VA3DFH
Assistant	Dan Goodier, VE3NI
Assistant	Rick Brown, VE3IMG
Graphical Support	Alex Malikov, VE3MA
Legal Consultant	Lorne Jackson, VE3CXT
Public Information & Media Relations Manager	Tony Champion, VA3QC
Photography	Reg Vertolli, VA3JQA
Assistant	Dan Goodier, VE3NI

## Audit Committee

Auditors Coordinator	Basil Burgess, VE3JEB
Assistant	Robert Humphreys, VE3HOW

## Public Service

ARES Emergency Coordinator	Dan Goodier, VE3NI
Assistant EC 1	William Bressette, VE3WPJ
Assistant EC 2	Michael Brickell, VE3TKI
Assistant EC 3	Lorne Jackson, VE3CXT
Assistant EC 4	Bob Boyer, VE3XBB
Assistant EC 5	Dave Stubbs, VA3BHF
Assistant EC 6	John Duffy, VE3DRZ
Assistant EC B/U	Dave Harford, VA3DFH
Assistant EC B/U	Robin Stubbs, VE3VVS
Assistant EC B/U	Robert Giddy, VE3IAB
CANWARN Manager	Peter Mosher, VA3PKM
Special Events / Walks Manager	Bob Boyer, VE3XBB

## CLUB CALENDAR FOR 2007 – 2008

### December 2007

02 Sunday Sunday Brunch - Shopsy's  
02 Sunday HF - 75/80 Meter Net  
03 Monday Basic Class 11  
04 Tuesday VHF/UHF - 2 Meter Net  
06 Thursday Exec Meeting  
07 Friday ARRL 10 meter Contest  
09 Sunday HF - 75/80 Meter Net  
10 Monday Basic Class 12  
11 Tuesday VHF/UHF - 2 Meter Net  
13 Thursday Club Meeting - Pot Luck Dinner  
16 Sunday HF - 75/80 Meter Net  
17 Monday Basic Class 13  
18 Tuesday VHF/UHF - 2 Meter Net  
20 Thursday Radio Night at Club Station  
23 Sunday HF - 75/80 Meter Net  
25 Tuesday VHF/UHF - 2 Meter Net  
27 Thursday NO MARC Meeting tonight  
28 Friday RAC Canada Winter Contest  
30 Sunday HF - 75/80 Meter Net

### January, 2008

03 Thursday Exec Meeting  
06 Sunday HF - 75/80 Meter Net  
07 Monday Advanced Class 1  
10 Thursday Club Meeting  
14 Monday Advanced Class 2  
17 Thursday Radio Night at Club Station  
21 Monday Advanced Class 3  
24 Thursday Club Meeting  
28 Monday Advanced Class 4

### February, 2008

04 Monday Advanced Class 5  
07 Thursday Exec Meeting

11 Monday Advanced Class 6  
14 Thursday Club Meeting  
18 Monday Advanced Class 7  
21 Thursday Radio Night at Club Station  
25 Monday Advanced Class 8  
28 Thursday Club Meeting

### March, 2008

03 Monday Advanced Class 9  
06 Thursday Exec Meeting  
10 Monday Advanced Class 10  
13 Thursday Club Meeting  
20 Thursday Radio Night at Club Station  
27 Thursday Club Meeting

### April, 2008

03 Thursday Exec Meeting  
10 Thursday Club Meeting  
17 Thursday Radio Night at Club Station  
24 Thursday Club Meeting

### May, 2008

01 Thursday Exec Meeting  
08 Thursday Club Meeting  
15 Thursday Radio Night at Club Station  
22 Thursday Club Meeting

### June, 2008

05 Thursday Exec Meeting  
12 Thursday Club Meeting  
19 Thursday Radio Night at Club Station  
26 Thursday Club Meeting - Pot Luck Dinner

### NOTES

1. Meetings start 7:30PM at St. Thomas A Becket Church Hall, 3535 South Common Court unless otherwise noted.
2. Brunch is at 9:30AM unless otherwise noted.
3. Classes are from 7:00PM - 9:00PM at Meals On Wheels at 2445 Dunwin Drive

Visit our website: <http://www.marc.on.ca> for any updates of the calendar.

## *One Man's Vision: The Story of the FSV*

**By: Michael Brickell VE3TKI and Tony Champion VA3QC**

### **The Dream**

In the mid-1990's the Mississauga Amateur Radio Club's Bill Reid, VE3VBC (now SK) held the position of Mississauga ARES Emergency Coordinator. Bill came to many club meetings to advocate the idea that Mississauga ARES should have an emergency vehicle of some kind. This is the story of the fulfillment of that dream.

The issue had always been how to fund such a vehicle. At the time, the Club's source of funds was almost solely membership fees. With a member base of 60 – 75 members, it seemed impossible to afford the cost of an emergency vehicle. However Bill came to an Executive meeting one day with news of a City of Mississauga Corporate Grant Program, which seemed to provide some hope of funding. We put together a quick application according to what we thought were the requirements of the program, and sat back to await our funding. To our chagrin, our application was rejected, primarily because we had misunderstood the application requirements, which it turned out, were based on the idea of 50% co-funding. So it was back to the drawing board and time for some serious soul searching and head scratching...

### **The Needs**

It was clear on re-reading the application material that our first application needed to be seriously reworked. The first thing we had to do was decide what it was that Mississauga ARES really needed to have. After much discussion we decided that we really had two basic requirements:

1. A new repeater system to replace a very old repeater and a controller of dubious reliability which would not meet upcoming Y2K requirements and
2. Some form of emergency vehicle, which we decided to call the Field Services Vehicle, or FSV.

Once the repeater needs were defined, discussion turned to what we wanted in the way of an emergency vehicle. Ideally this would serve as a mobile emergency command post to serve agencies as requested, and also to support various community events for which Mississauga ARES provides communications.

Our first thought was to purchase a small used van of some kind, as we would not have to depend on someone in the

group having towing capability. We investigated, and immediately ran into a number of difficulties. The first issue was on-going funding of the vehicle maintenance costs. The club does not have the assured income that this would require, given that it depends on member dues. The second issue was obtaining insurance. Because the vehicle would be owned by the club, which is a not for profit corporation, rather than an individual, we would have to pay commercial rates. A further complication for insurers is the number of potential drivers. We were aware that some ARES groups have been able to negotiate arrangements with municipal authorities in which the municipality owns, insures, and maintains the vehicles with the ARES group operating them, but enquiries showed that this option was not available in Mississauga.

In light of these considerations we decided to pursue the other alternative, a trailer. We looked at prices of new and used trailers of different sizes, and eventually settled on a price range for budgeting purposes.

### **The Corporate Grants Process**

With our needs and an approximate budget decided upon, we carefully re-read the grant program requirements. We needed to justify the project in terms of the benefits to the City and its residents, indicate approximate costs, and provide a five year financial projection for the club.

As project justification we described the services that Mississauga ARES could provide to the City in an emergency.

Our budget was \$13,000 for the equipment we needed. We would need to find separate funding from sources other than the city for half of the total, i.e., \$6,500, before we could submit a formal application. We approached the management of the Ontario Hydro Lakeview generating station, located in Mississauga, for support, and were rewarded with a grant of \$5,000. The local Kiwanis group donated \$500, and we were able to project revenue of roughly \$ 500 from our share of the proceeds from the Ham-Ex hamfest that we and the Peel Amateur Radio Club in nearby Brampton jointly operate, and another \$500 from sales of some surplus equipment we happened to have on hand. With these commitments in hand, we wrote up the application, and submitted it to the City.

We met with a city liaison officer a number of times, to clarify our needs, our cost estimates and details of the financial plan. This resulted in some minor modifications to the application. It was very gratifying, some time later, to get a letter from the City approving our application.

## Equipment Purchase

With the budgeted \$13,000 in hand, we were in a position to proceed with our project. We ordered the repeater equipment, and began to look seriously at trailers. We found a second hand Pace American trailer which suited our needs. It is a single axle unit, 6 feet wide and 10 feet long, with a side door as well as rear doors.

## Trailer Construction

Discussions were held to come up with what was to go into the trailer. After that we had to come up with a design that would:

1. Allow two operator positions
2. Allow the safe storage of masts, antennas, tents, cables, radios, and generators when being towed
3. Have the weight distributed properly for safe transportation

All this had to fit in the 6 foot wide by 10 foot long interior space available. Tony Champion VA3QC has a lot of experience using Autocad, and undertook to do a suitable interior design to store, transport and operate the FSV's equipment (see Figure 1). We moved the trailer to the construction site, the driveway of Michael Brickell, VE3TKI, where it lived for the 3 months it took to complete construction.



**Figure 1**

The trailer came empty but with an oil-stained plywood floor. The first order of business was to cover the floor. Our first attempt was to lay down stick on tiles; however these (predictably in retrospect) lifted due to the oil. Enter Plan B, a new ¼ inch plywood subfloor, with linoleum glued to it. This has proven to be very successful. Figure



**Figure 2**

2 shows the empty FSV, and Figure 3 shows the exterior, after various insignia decals were added.

The interior cabinetry is constructed primarily from ¾ inch plywood. We built a multi-user operating position on one side (the curb side) of the trailer. This consists of an



**Figure 3**

operating desk, 30 inches high, made of a plywood base covered with laminated flooring to make a working surface. The desk sits on a set of cabinets which provide storage. The cabinets can be accessed from either under the desk or through a door which opens when the rear door of the trailer is open.

We built a separate 30 inch high storage unit on the other street side of the trailer. This has space to accommodate our two collapsible antenna masts, each 8 feet long, plus

other storage. A third storage unit is placed across the front of the trailer.

As well, we constructed a number of separate, removable equipment enclosures, for the radio equipment. These cabinets sat on the operating desk and were held in place with a wood hold down bar for transportation. The idea was that when not needed for the FSV, the enclosures plus the equipment in them could be taken to events at which the FSV itself was not needed.

The interior walls, the ceiling, and the inside of the doors are covered in indoor-outdoor carpeting glued to 1/8 inch plywood. Fiberglass insulation was placed above the ceiling to dampen rainfall noise. We installed a screen



**Figure 4**

door on the side door, and provided a set of removable screen panels which can be fitted to the rear door opening, to allow air circulation through the trailer. A paint job completed the installation. Figure 4 is a view of the interior of the completed FSV.

External electricity is provided through a 120v connector on the side of the trailer. This is wired to a small circuit breaker panel inside. We installed two 120v plug strips, one on each side of the trailer, and two four foot long fluorescent light fixtures. As well, we provided some 12v ac task lighting above the operating position, and 12v dcx for an interior roof fan. An outside duplex connector was also installed so that if we wish we can run other equipment outside the trailer. An access panel for antennas was installed in the rear door of the trailer.

The club owns two generators, which can be stored in the FSV. For transportation, each generator is placed in a

wood carry box, which can be inverted when not used, to act as a step into the FSV.

## Equipment

We have HF, UHF/VHF and digital capability in the trailer. HF operation is via a Kenwood TS-480SAT, and we use a Kenwood TM-V7A for UHF/VHF. A Kantronics KPC-3 TNC has been installed for digital use. Various hf single band wire dipole antennas and a vhf/uhf J pole antenna, and assortments of coaxial and electrical cable are on board.

Tony and Shirley Champion graciously donated two operating chairs and Sean Conlin VA3MED donated some first aid kits and fire extinguishers.

## The Results – What we learned and the Future

The use of Autocad to do the design work meant that everything went together properly the first time.

While the gross weight of the FSV, cabinets, and equipment is not a particular issue, its tongue weight (the weight placed directly on the towing vehicle hitch) is. We have a limited number of ARES/Club members with vehicles capable of towing a trailer, and the tongue weight has been a problem. We have been able to reduce the tongue weight somewhat by placing the generators behind the axle, as far back towards the rear of the FSV as possible. Possibly the use of lighter weight material for the cabinetry would have helped, but we needed the strength provided by the plywood we chose. In retrospect it might have been better to have purchased a dual axle vehicle to provide a better weight distribution.

After some use, we decided to dispense with the equipment enclosures in favour of mounting some of the equipment (e.g. the TS480 body) on the FSV wall. We have used wing nuts to do this, so that it can be removed easily. Also we have installed a light weight rack which holds the TM-V7A and the KPC-3. We have used Anderson Powerpole connectors to provide interchangeability.

Other changes have included mounting a tripod on the front apron, to support a lightweight mast, and the installation of a 2.4 GHz wireless access point and antenna (which we have used for our Field Day wireless logging).

In conclusion this was an interesting project to work on, and all involved learned a great deal. The FSV is in fact a work in progress. While there are a few shortcomings, the FSV is overall a resounding success and is a valuable asset to the club and the Mississauga ARES group.

## *The Internet Radio Linking Project- Another Canadian Invention*

By David Cameron, VE7LTD, IRLP Designer  
(<http://www.irlp.net/>)



### Background Information

The Internet Radio Linking Project was started back in November of 1997 as an attempt to use the internet to link radio systems across Canada. The first full time link that was established ran from Vancouver, BC to Saint John, NB. The link had many problems and was shut down in March of 1998 due to the numerous computer crashes

and repeater lockups it was causing, and the lack of user control over the system.

I set out to design a better way to use the same technology to perform the same task, while improving usability, user control, and sound quality. My first breakthrough was to replace the existing operating system, Windows, with a more stable and versatile language. I chose Linux, an open source form of the operating system UNIX designed by Linus Torvalds, because of its superior networking characteristics, its reliability, and its ease of programming.

I designed my own interface board to interface the radio to the computer. This allowed a large amount of delay to be



removed from the system because two VOX circuits were no longer being used. I also wrote my own custom control software, and modified an existing voice-over-

IP software package to accommodate the project.

The final product was a combination of hardware and software that created a nearly seamless radio link between two remote sites on the internet. The product works so well that many people can not believe that they are talking through a link at all!

### How Does IRLP Actually Work?

The IRLP uses a Voice-Over-IP (VoIP) streaming software called Speak Freely. Speak Freely is very similar to other VoIP software packages (such as Microsoft NetMeeting and VocalTec iPhone) with one difference... It runs under Linux.

Linux is the operating system of choice for the IRLP system as it allows the best in reliability, programmability, efficiency, and functionality. Most older IRLP nodes use Linux RedHat 7.3 or RedHat 9 as they are very stable releases and run very smooth on any P1 or better computer. Effective March 2007 IRLP started shipping an open sourced CentOS version of Linux. This release provides greatly improved operation with more support for audio cards.

The concept of IRLP's use of VoIP is as follows:

1. Sample the audio using an analog to digital (A/D) converter. The A/D converter used by IRLP is the input source of a standard PC sound card. This creates a continuous mono 16-bit digital stream of raw audio at 8000Hz (120000 bps).
2. Compress the audio by downsampling the stream and using an 4-bit ADPCM algorithm to reduce the size of the stream by a factor of four (32000 bps)
3. Split the sample into small chunks (or packets).
4. Transmit the packets to the remote host using a User Datagram Protocol (UDP) stream. UDP does NOT confirm the reception of packets, so it uses a "fire and forget" method.
5. Receive the packets on the remote host.
6. Join the split packets back into a 4-bit ADPCM stream.
7. Uncompress the ADPCM stream back into an 16-bit raw stream of audio.
8. Play the raw audio stream through a digital to analog (D/A) converter (the output device of your sound card).

The control software controls the stream using carrier operated squelch (COS) or continuous tone coded subaudible squelch signals (CTCSS) to start and stop the stream. When COS is present, the computer detects it through the IRLP interface board.

The PTT is controlled by the buffer which joins the split packets back into the audio stream. The IRLP interface board receives a "transmit" signal from the computer while there are packets in the buffer, and a "unkey" command when the buffer is empty.

The user interfaces to the IRLP computer using DTMF signals sent over the radio. DTMF sequences are owner programmable, and can accomplish almost any function imaginable. The DTMF signals are detected on the IRLP interface board and sent directly to the computer in binary, where they are converted into numbers. A DTMF software

program which I wrote then runs commands on the computer depending on the code entered.

These commands are what start and stop Speak Freely, basically establishing and breaking the link.

And that is, in a nutshell, how IRLP works.

## *The Roving Reporter*

This month the Roving Reporter interviewed Robert Schaffrath, N2JTX, from Long Island, New York. Robert has been a frequent visitor to the club.

### N2JTX

RR: How is it that you found out about the club?

N2JTX: Back in October 1996, my sister and her family moved from Etobicoke to the Streetsville area (she originally moved to Etobicoke from Long Island we she got married in 1992). So I was very interested to see in QST sometime later that there was a special event station in Streetsville, the Club's Bread and Honey Festival operation. I worked the station, and sent in a QSL request, mentioning on it that my sister lived in Streetsville. In your reply you invited me to come to a club meeting when I was next up here, and so I did. I get up to Canada once or twice a year, usually around the US Thanksgiving holiday.

RR: How did you become interested in amateur radio?

N2JTX: I was first licensed in August 1989. As long as I can remember, I have had an interest in electronics. My father had a childhood friend who became an electronics technician at WVIT-TV channel 30 in Hartford, Connecticut. He subsequently became N1AYU (SK). He came to visit my Dad when I was a child; he would stay with us and bring interesting electronic gadgets for us to play with (antique radios, exotic transmitter tubes, image

orthicon, etc.). I got into the CB craze in the 1970's, and someone told me then that the next step was amateur radio. I started learning CW in 1980 but went to college to do electrical engineering (later switching to computer science), and so did not think anything more about ham radio at that time. I had a CB radio in the car, with an external antenna of course, and one day leaving work the security guard asked if I was an amateur radio operator. So I asked him if he was, he said yes, and told me about the changes in the licensing processes in the US which made it easier to get your licence (the Volunteer Examiner program). So I thought "why can't I do this?" and subsequently went with a friend to get the Morse code study tapes at Radio Shack. I was amazed at how quickly I picked up the code, and I found that I had covered much of the theory in my EE courses. The regulation part was annoying and required straight memorization. There was no logic to it at all. I passed my Technician exam, and in the four week period until the licence arrived I had studied for and passed the General test, the next step up (13 wpm CW and more theory). A month later I passed the Advanced test and stayed at the level until 2000 when I got my Extra Class qualification.

RR: Tell me about your station.

N2JTX: My primary radio at the moment is a Yaesu FT-757 GX II. I run barefoot

into a long wire loop fed with a balanced line into a tuner, strung between the trees on my property, up about 25 feet. The antenna covers 6m though 40m, and performs well, especially to the South Pacific. For logging I use an Excel spreadsheet and I wrote some custom conversion tools that allow me to take the spreadsheets and convert them to ADIF format for uploading to the ARRL's Logbook of the World. I have an FT-897D for mobile/portable work as well as a VX-7RB.

RR: What are your interests in amateur radio?

N2JTX: Initially I was interested primarily in the VHF/UHF side as I did not have the real estate necessary to set up a good antenna living in an apartment. Now that I have space, I mainly chase DX on HF. I have 279 DXCC entities confirmed at this point as well as 352 islands in the RSGB IOTA program (a program I am interested in because I reside on IOTA NA-026). I do a bit of PSK31 and RTTY, and some CW, but mostly I do SSB. I have been experimenting with a new mode, called "Olivia" (interesting to me because my youngest niece has

that name!) but haven't had time to do much with it so far.

RR: Are you involved in other amateur radio-related activities?

N2JTX: I have been a member of the Westchester Emergency Communications Association since I became a ham. This is a local area ARES/RACES group that serves Westchester County, which is located on the mainland north of New York City and Long Island.

Also, for 17 years I have been the communications captain for milepost 22 in the annual New York City Marathon. And recently I have become involved in a Community Emergency Response Team here in Nassau County. We provide volunteer backup to first

responders and we use amateur radio as part of it under ARES.

I am a life member of the ARRL and I am a Volunteer Examiner for the ARRL.

RR: Robert, have you ever been involved in a real emergency as part of ARES?; if so what was it and what was your role?

N2JTX: Yes, just once as RACES. Back in December 1992 we had what was referred to as "the no-name storm". It was a classic Nor'easter that hit Long Island and the greater Metropolitan New York City area with the force of a hurricane. Since it was not a true hurricane, it was nicknamed "the no-name storm". I operated as net control from the Westchester County Emergency Operations Center in White Plains, New York. As I worked only a few blocks

from the center, I was able to get over to it and help with the operation. I fielded Skywarn, power outage, flooding and related damage reports such as downed trees and wires and routed them to personnel in the EOC.

RR: Do you have non-ham hobbies?

N2JTX: I brew beer, am a bike rider and enjoy gardening. Also I am on the Board of Directors of Adventures in Learning, a reading program for underprivileged children. I also take care of some of their technology needs helping set up and maintain their classroom network and computers.

## *Minutes of the meeting November 08, 2007*

Location: St Thomas A Beckett Anglican Church

7:30 PM Call to order Rick/VE3IMG

Visitors: No visitors this evening

Attendance: 26

HAM Activity/Operating News:

- There was nothing mentioned by the members.
- Rick/VE3IMG reported that he had experienced a couple of openings on 6m and 160m.

Morley/VE3TY tower and equipment:

- The tower came down smoothly. There were 7 or 8 members who helped in taking the tower down and loading it up onto the truck. There were no issues (or injuries).
- Rick/VE3IMG had removed the equipment earlier in the week and was testing some of it to make sure it was functional.
- The equipment will be listed on Ontario Swap Shop and no prices had been finalized will be a mixture of equipment from VE3TY and the club station. Some of the equipment is listed below (not a complete list):

- Kenwood TS-830 with external VFO, speaker, KW107 Supermatch, Heathkit SB610 Scope and Kenwood MC-50 Base Microphone
- Heathkit SB200 power amplifier and spare tubes
- Collins 30-II Power amplifier and spare tubes
- Kenwood TS-450 & filters & MC-85 Microphone

- FT0101ZD & SP-901

Club Events:

Goblin Patrol Michael/VE3TKI

- Michael/VE3TKI was net control
- 10 cars
- No incidents
- Over BY 8 PM
- Of interest, the Net was jammed. Initially a Goblin patrol from south of the border was broadcast. The an Oakville Goblin Patrol was transmitted on our frequency and our Goblin Patrol on theirs.
- Please when the happens, NEVER, NEVER, NEVER, EVER acknowledge the jammer.
- The bottom line? It was a very successful event. Well done.

ARES SET Michael/VE3TKI

- Nov 3, part of the annual emergency services test.
- There was a "lack of coordination" issue that showed up. The ECs from the various ARES groups need to work on a plan for communication amongst the group if they come onto the air at different times.
- On a positive note, we were able to communicate via packet and voice.
- We will be having a debriefing session and Michael/VE3TKI will be sending out his notes/observation on the exercise.

## *Preliminary Assessment of SET 2007*

Date of SET: November 3, 2007-11-03

### **MARC Participation:**

#### Red Cross Ontario Zone Office:

VE3TKI Michael Brickell  
VE3CXT Lorne Jackson  
VE3ITU Sohail Anjum  
VE3SHL Richard Govoni  
VE3WPJ William Bressette

#### Meals on Wheels:

John Duffy VE3DRZ  
Bryan Jay VA3BLJ  
Bob Boyer VE3XBB

#### Other:

Vic Henderson VE3FOX (DEC)  
Susan Fitzgerald Red Cross

### **Comments:**

#### Overall Assessment:

We succeeded in passing digital and voice traffic. Mississauga ARES was not prepared as well as we should be; we need more frequent practice

Operators knew what they were doing and how to operate the equipment

Net protocols need to be reviewed

In general the main area of improvement is on the organizational side

#### Station Locations:

FT-8800 was used for voice traffic and Outpost packet in Training Room;

Club ac cords used to connect to generator, VE3TKI's coax to make connection to antennas

Winlink station was set up in small room where the cabinets are FT-8100 in cabinet was not used

The FT-8800 had to be taken off line ie off the net to do the Outpost packet traffic; this resulted in unexpected dead time for others wishing to contact Ontario Zone with traffic

#### Recommend that:

Winlink and Outpost digital stations be co-located in small radio room

FT-8100 to be located in training room at end of hall for voice traffic

An antenna switch will be needed for the digital stations

#### Generator

- \* MARC 1.5 kw generator was used to run FT8800 station, KPC-3, two laptops
- \* gas tank was empty, VE3TKI had brought gas beforehand
- \* oil level was low; VE3CXT had to get 1 liter of oil before we could start the generator
- \* the generator should have been serviced after the last major use (Field Day); in future we need to be sure that the generators are serviced after major events such as Field Day so that we do not have to add oil etc in an emergency
- \* the generator started easily and ran flawlessly as expected

#### Digital Stations:

- \* VE3SHL ran Winlink with Airmail over packet using his won vhf mobile; several messages were sent and received correctly
- \* VE3TKI ran Outpost with Red Cross FT-8800 and laptop; several messages were sent to VA3PB at Ballantre; no replies or other traffic incoming
- \* Outpost message sent to VA3WOE (William Osler); not received as operators there unfamiliar with Outpost

#### Net Structure:

##### Issues:

- \* By 09:00 VE3PRC was on the air and operated as net control
- \* Oakville ARES group ran a separate net
- \* Mississauga ARES checked into PRC net
- \* Oakville ARES, Meals on Wheels, O-Zone could not pass traffic to VE3RCO because they could not get into VE3PRC because PRC was taking check ins
- \* Oakville could not hear VE3PRC and vice versa
- \* ARES groups

We need a net control station that acts ONLY as net control:

- \* Needs to be centrally located so can be heard by everyone
- \* Preferably we should always use VE3RCO as central net control because of its location
- \* Net control should:
  - o act as a clearing house for traffic;
  - o NOT take messages itself;
  - o pass ALL traffic to a secondary frequency

- \* Suggest we use the VE3MIS UHF repeater, and/or assigned VHF frequencies for message passing

#### Preplanning:

##### Issues:

- \* Mississauga ARES needs much more practice
- \* Meals on Wheels did not know that this was a joint exercise involving Oakville, Brampton and Mississauga

\* Brampton ARES could not send operators to schools acting as shelters as requested by Red Cross due to lack of available operators

\* We did not use tactical callsigns

#### Comments:

\* Mississauga ARES should schedule a debriefing asap

\* Mississauga ARES should run several mini-Sets for practice, soon

\* The SET 2007 scenario provided by VE3FOX was posted to the Mississauga ARES group files section in advance

\* The ECs of the areas to be involved need to meet to discuss future coordination

\* Did Red Cross announce where shelters were going to be in advance; this information needs to be communicated before the exercise so that staffing can be set up

\* Mississauga ARES did have operators available, who could have gone to Mississauga area shelters

\* In future, use tactical callsigns, not VE3RCO, VE3RCX etc, use tactical calls such as Meals on Wheels, Ontario Zone, School; xxx shelter, etc

Prepared by:

Michael Brickell, VE3TKI

November 3, 2007

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