

## **Nortown Amateur Radio Club Minutes of the November 21st, 2008 Meeting**

### **Present:**

John VA3MDJ  
Ian VE3IJS  
Martin VE3MHC

John VA3AAD  
Elliot VA3EJF  
Doug VE3EES

David VE3VNE  
Frans VE3VNC  
Bert VE3ENA

### **Recent member-attendees who were absent:**

Claus VE3PMD  
Sam VA3SEP  
Jal VE3SOC  
Jana VE3BFU  
Tony VE3VME  
Jim VE3GRT

Bill VE3WHW  
Rej VA3REJ  
Andrew VA3CRA  
Vipi VE3PID  
Paul VE3PGF  
Cyril VA3CJE

Geoff VA3GEG  
Tom VE3TEG  
Ron VA3CCR  
Jost VE3SWI  
Bernie VE3OTR

John, VA3MDJ opened the meeting.

### **Old Business**

#### **Repeater**

John, VA3AAD reported that the repeater had been down from Friday, Nov. 14<sup>th</sup> to Friday November 21<sup>st</sup>. because of annual maintenance work in the building chiller room, where the unit is located. It should have been out of operation for only about two days, but the contractor doing the work had not plugged it back into the AC supply securely and there had been mis-communication between John and the building supervisor.

John, VA3MDJ and others reported on their experiences triggering the repeater from various sites around the City.

- VA3AAD reported that the keypad test using a 5W. handheld within a car works only within a maximum radius of about 1.5 km (as far as the Bloor-Danforth viaduct).
- A 5W handheld within a car can trigger the repeater from somewhat north of Finch and can pick up voice transmissions from the unit.
- VE3ENA, using an antenna at 60 feet, can trigger the keypad test with a 2W signal from the Bathurst and Finch area.
- VA3MDJ and VA3EJF conducted extensive tests and determined that the transmitter seems to work well as does the controller. The receiver seems weaker. The pattern seems strong to the north and good to the east with a shadow more or less north east probably representing the nearby building to the east of the machine. Limited tests to the west show pretty good performance possibly with a similar shadow of the buildings to the west of the site. Full power mobiles and elevated antennas do well. Handhelds, particularly inside cars do not do as well.

The bottom line is that the 18W transmitter seems to be functioning adequately but that the unit's reception is not as good as had been hoped. For most members, home base station roof-top antennas or condo balcony antennas will be required for consistent operation at 5 watts.

John, VA3MDJ outlined further investigative work that will be carried out over the next few months:

- (1) The control head squelch settings within the unit will be checked since, on the Mitrek, overly advanced squelch settings can reduce receiver sensitivity.
- (2) Our back-up receiver will be put in place to determine whether it has better sensitivity, using the same antenna, so as to get a sense of whether the antenna or the receiver is the problem.
- (3) Reception will be evaluated with the transmitter off, to determine whether there is any desensing of the receiver by the transmitter that requires better shielding or work on the duplexer.
- (4) The 4-bay directional antenna that was purchased at a hamfest may be defective. It will be disconnected temporarily and a conventional vertical substituted to estimate the four bay's efficiency and put in place a better performing antenna temporarily if needed.
- (5) Based upon these tests, if it is determined that the site is marginal, a receiver preamp will be tried.

*For those who wish to test the system, the repeater transmits on 443.650 MHz, and receives on 448.650 MHz. The PL tone is 103.5 Hz. To test the system, transmit from your hand-held (on 448.650 MHz.) the digits 375, followed by several additional random digits of your choice. If the system is in range, you should hear the words "Keypad Test", followed by the additional digits that you keyed in.*

John, VA3AAD, reported that he had purchased, on EBay, a service manual for the repeater's Mitreks, for \$US 41.

### **Financial Report**

John, VA3AAD reported that 15 out of the 19 members, who had contributed dues last year, have registered this year. With the two "new" registrations, paid membership is now at 17. Members are encouraged to contact the four "lapsed" members to determine whether there is anything that the Club should be doing to sustain their interest.

### **Annual Festive Dinner**

Ian, VE3IJS, reported that 12 tickets have been sold for this event, which will be held on Friday evening, December 12<sup>th</sup> at 8:00 PM, at the Sierra Grill, in Bayview Plaza, with the

usual cash bar before. Tickets are \$42 per person and will be sold at the next two meetings. Please email Ian at [igshaw@sympatico.ca](mailto:igshaw@sympatico.ca) if you plan to attend.

## Surplus Equipment Disposal-Donation-Raffles

John, VA3MDJ, again reminded everyone that the Club inventory of surplus “stuff” has been depleted. Members should bring in small items to give to Jim, VE3GRT. Jim will accumulate them until enough are available for a meeting raffle.

## Future Presentations:

John, VA3MDJ reported that we have no presenters scheduled for any of the twelve 2009 meetings. He asked members to volunteer, reminding everyone that we all benefit from this sharing of expertise. He stated that he will be contacting individual members to enlist their participation.

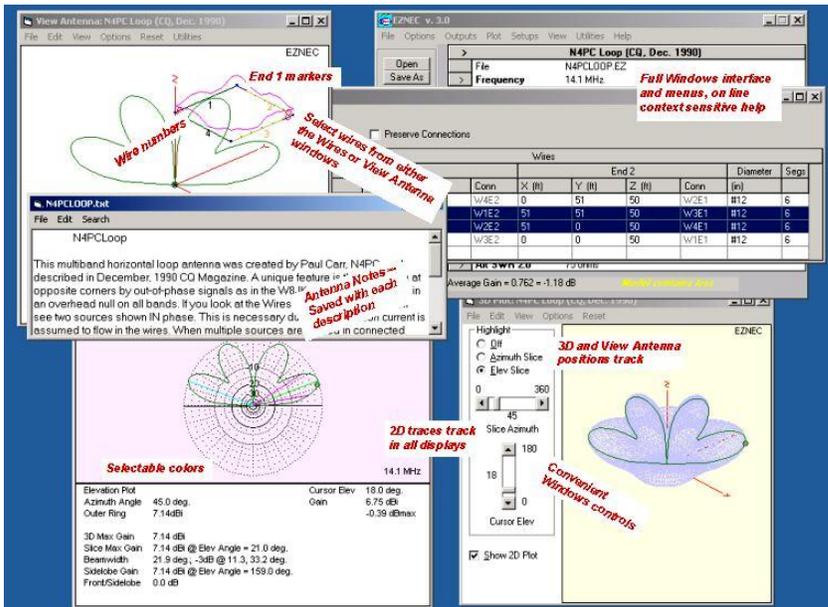
## New Business

There was no new business.

## Presentation

John, VA3AAD gave a demonstration of EZNEC antenna modeling software. This inexpensive program allows one to specify the dimensions for any type of antenna. It not only graphs SWR vs. frequency, but also shows far-field plots in 2D and 3D. Several counterintuitive results were shown for a simple 20m dipole. This stimulated a vigorous and enlightening discussion.

A screenshot is shown below.



The web site for the software is at:

<http://www.eznec.com/>

### **Financial**

The coffee collection yielded \$9.00. There was no equipment raffle.

### **Next Meeting:**

Will be held on Friday evening, December 5<sup>th</sup>, at 8:00 PM, at our usual location, the Bayview Community Centre, just north of Finch. Bert, VE3ENA, will show a DVD that he has prepared, about ham radio in Europe. Hope to see you there.

John  
VA3AAD  
[www.eternalchaos.com](http://www.eternalchaos.com)