

NORTH SHORE ARC



Box 171, Oshawa, ON, Canada, L1H 7L1
<http://www.ve3osh.com/>



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Don't forget the Wednesday Evening Net.

From Will VA3WEW and Howie VE3TYQ.

Our Club net is on 147.120 + at 8PM local time every Wednesday. Plan to be there.

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Camp X Photos

From Larry VA3FHG

Photos from Margaret VE3BNN have been posted on-line at:

<http://news.webshots.com/photo/2773375910101932548frKyfM>

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.A Facility Relocation Project:

The North Shore Amateur Radio Club Inc moves its repeaters to a new home.

**By Ken Koronovich VE3RMK
Project Manager - Facility Relocation Project
Secretary - North Shore Amateur Radio Club Inc.**

Let me introduce you to the North Shore Amateur Radio Club (NSARC). Organized in 1947, we are 52 members strong, located in Oshawa, Ontario serving the Durham Region. We are a Club a lot like your Club in many respects. Our Club supports the local Amateur Radio Emergency Service (ARES) group. Our membership works tirelessly on our service to the community and Club Projects. Will VA3WEW the primary Net Controller, backstopped by Howie VE3TYQ the former Net Controller run the Club Net and look after logging the activity. Both are top notch at what they do. There are the members

like Ray VE3OUB, a master at passing traffic, who keep watch on the repeater frequency. The committees look after the many aspects of Club endeavours. Our Club President, Peter VA3PWH and Vice-President, Mike VE3VCY along with a dedicated executive watch the running of the Club and manage the resources for the maximum benefit of the Club.

Chief among the committees is the repeater committee. Our repeater committee, Gary VE3EPY, Mike VE3VCY, Dave VE3GUD and Ralph VE3CRK keep the voice of the Club on the air. They are instrumental in getting the most bang for the buck out of the equipment we have.



All areas of interest and concern seem to intersect at the repeater. In 1967, VE3OSH was the second 2M repeater on the air in Canada and it is central to most of what we undertake. But deficiencies in the signal pattern and our inability to use the repeater

for wider ARES support became an issue. The mix of industry in the Durham Region, including automotive, aerospace and chemical manufacturing, steel making and nuclear power generation means that special attention must be paid to ARES support. There were areas where coverage was spotty at best, including the "Waverly hole". You may have a local version of the same thing, a place where radio signals have to fight to get in or out. Three years ago the executive started formulating plans to find the optimum location and move the repeaters.

The identification of an ideal location is easy. Getting the requisite permissions and access is another matter. A testament to our Club President was his ability to get them for an excellent site overlooking the City of Oshawa.

Then the tough work of figuring out how to house and power the equipment became the focus. Ensuing discussions, which some would call debates were quick to sharpen our focus on the minimum requirements. At the top of the list was physical security, followed by back-up power and ease of access. Once all the requirements were together we got a reality check when it came to costing the project. The information was presented to the Club and when we all recovered, it was clear that finances were going to be a stumbling block.

Funding available within the Club required the executive to look at options for additional funding for the project. The decision was made to seek support from the Ontario Trillium Foundation (OTF). The first attempt to secure a grant did not succeed. The fact that OTF staff while experts at what they do know very little about Amateur Radio was not at first fully appreciated by the executive. Our President and Vice-President had a meeting with the OTF officer assigned to our request and it was an eye-opener to say the least. The executive learned that the correct transfer of information and requirements need special care and attention.

Armed with this new knowledge the executive presented the Club with the option of waiting until the funding built up in the Club coffers or making another application to the OTF. One of the more senior members of the Club expressed his thoughts on "wanting to see it in his lifetime". This sentiment received wide support and sealed the deal for the second attempt.

Our second application in addition to the requirements, costing, contribution and funding information contained detailed project plans, manpower estimates and measures to show both progress and what success would look like. Explaining amateur radio and its contribution to the community to the OTF was essential. The meeting at the site between the OTF, the executive and

repeater committee was the cap on the information transfer process. It is very easy to be impressed with the OTF staff. They're sharp. They know which questions to ask and can tell the difference between fact and fantasy. It was a pleasure to work with them on this project. The hard work by the repeater committee and the executive was rewarded in the summer of 2006 with a grant for the requested amount of \$26,900.00.

As project manager, my work focus shifted from the preparation of paperwork to the actual development of the site. Project planners call the development of a new site a "green-field" development. Lack of rain in our region made it seem more like a "brown-field" development. The work of getting the tower base dug and poured was a supreme effort. The crew ended up having to rent electric jackhammers to shape the very bottom of the hole. The acquisition of the buildings, the generator and the associated electrical bits and pieces was straightforward, but time-consuming. In the Durham Region we are fortunate to have many good companies to deal with. As a volunteer organization we were able to secure some very good discounts. During the fall of 2006 the capital purchases were completed. Unusually good weather allowed progress well into January 2007. The buildings arrived and were assembled. Then winter, snow and ice arrived in rapid succession and work halted. That was it until April.



When things finally cleared up we were back at it with renewed vigor. Things really started to take shape. It turns out that the delay worked in our favour regarding the electrical work. The provincial electrical inspection authority revised its rules, which allowed the Club to secure a permit for the electrical work as a volunteer organization. This allowed us avoid the huge cost of hiring a licensed electrical

contractor, as our site was classified as NON-residential.

A safe work environment was key to our work at the site. Special thanks to Club members like Doug VA3DCE who kept the grounds neat and tidy. Joe VE3VGJ was involved with keeping things ship shape at the site too. A clean site makes for a safe site. Electrical work of course is key. Our electrical crew was superb. The volunteers included a qualified electrician, Tony, VA3BGA a retired Bell employee, Bob VE3LLE and the rest of us who just helped. Many other volunteers made the tasks disappear off the list with speed and style. We are grateful for each and every one of them.

The application process with the OTF had an additional unexpected benefit. We had a much better grasp of how to prepare the documentation package for the electrical inspector. This package was used when we had the trench inspection done and prepared for the building electrical work. The package contained site layout drawings, single-line diagrams, calculations, cable sizing and an equipment list. The second and final inspection of the electrical work identified one minor issue, which was rectified as the inspector looked on. If you think we were pleased when we got the thumbs up for the trench inspection, you should have seen us when the inspector gave us the official “okey-dokey” on the electrical work and we were able to power up the site. Skip this next sentence if you can’t bear the thought of a bunch of grown men dancing around the site after we got the good news.



In all projects, as the end approaches things move faster and the more it seems there is still lots left to do. This project was no exception. The move of the repeaters and the setup of a temporary antenna produced wonderful results. These results supported all the work that was done computer modeling the site and signal patterns. It even looked like we had planned it.

The next big hurdle was moving the tower. A local communications company, Trilinks Communications stepped in and offered to do the move for us. This \$4500 act of corporate benevolence saved the project an estimated 346 hours of manpower. That’s important when you are working with a volunteer labour force. Having the professionals handle the task was a big plus for safety too.



All went smoothly. The only surprise was how much better than expected the signal pattern was when the antenna was placed on top of the tower. The improvement was even greater than the modeling had predicted. Our test results show that most gaps are filled and spotty coverage in our region is, for all intents and purposes, gone. Places that needed a mobile transceiver on high power are now easily worked with a hand-held in most cases. In fact coverage has been extended. One important test involved communication from the repeater’s new home with the Provincial Emergency Operations Centre (EOC) in Toronto. With VE3OSH in its new home, we now have coverage to Grafton in the east, to Lindsay – Peterborough – Bobcaygeon in the north-east, Coboconk to the north, Barrie to the north-west, Mississauga and Hamilton to the west,

Niagara on the Lake to the south (with a HT) and into New York State.

The inauguration ceremony at the new site was held on July 25th, 2007. The media , the local member of Provincial Parliament and many Club Members attended. It was a fitting end to the project. We had achieved our objectives.

What we learned:

1. Safety is the most important issue.
2. Plan the work and work the plan. Good Planning goes a long way to getting things done.
3. The Club made it happen. We had the active participation of approximately 40% of the Club Membership.
4. Club members will surprise you with what they can do and the high standard of their work. Just when you think, "they've really outdone themselves this time", they move the bar up a notch.
5. People outside of Amateur Radio don't know what we do. Tell them in language they understand. If you can explain it to them, usually they'll gladly help.
6. Local business is ready and willing to assist.
7. Private individuals are ready and willing to assist.
8. It's going to cost more than you think. Keep an eagle-eye on costs.
9. Document everything. You never know when you'll need the information. Pictures help. Know why you are doing what you are doing. You may need to explain it to someone important.
10. The Electrical Inspector is a wealth of knowledge. Seek and accept his advice.
11. All levels of Government are glad we're around, even though they don't always express it.
12. Nothing beats the feeling of satisfaction for a job well done.

NSARC is happy to share this positive experience with the Canadian Amateur Radio Community. If you have questions or comments please contact the Club executive.

For information, contact the North Shore Amateur Radio Club at: www.ve3osh.com

The Ontario Trillium Foundation can be found at: <http://www.trilliumfoundation.org/>

Local Media Links:

<http://newsdurhamregion.com/news/durham/article/83518>

[http://www.oshawaexpress.ca/Archives/2007/August/August 01/August 01 2007 - Low.pdf](http://www.oshawaexpress.ca/Archives/2007/August/August%2001/August%2001%202007-Low.pdf)

Links on HAM Sites:

<http://www.eham.net/articles/17214>

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Your very happy scribe

Ken
VE3RMK