



Radio Amateurs of Canada

Youth Education Program

NEWSLETTER #11

April 22, 2005

Peter Bon (VA3PTB) of the Monsignor Doyle Catholic Secondary School in Cambridge, ON has put together a most thorough report of his project which makes up the bulk of NewsLetter #11. A number of photos of his facility are also attached. I'm sure that, if more information is required, Peter will be happy to supply it.

Remember that a requirement of participation is that you provide us with a syllabus of your program, so that the rest of the YEP members can avoid having to "reinvent the wheel". Now would be a really good time for you to start putting this together, so that you don't get caught up in trying to do it during the year-end panic.

Once again, this information will be shared with all of the YEP participants at the beginning of the 2005-2006 school year.

I have put together a PowerPoint presentation which will be shown to representatives of Industry Canada at the CARAB meeting scheduled for next month. The presentation will also be made at the Board of Directors' meeting, where it will be seen by all of the RAC Board and Executive and the representatives from ARRL and IARU. Many good things are going to be said about your efforts and your program.

Slowly, But Surely: Msgr. Doyle's Amateur Radio Project is Progressing

I would like to thank Bj (VE5FX) for this opportunity to outline what has taken place so far this year at Msgr. Doyle.

Msgr. Doyle Catholic Secondary School is located close to the southern boundary of Cambridge, Ontario and serves the south and west parts of the city as well as the adjoining township. We have about 1070 students attending this year and anticipate enrollment growth. Geographically, Cambridge is about 100 km west of Toronto, in the Region of Waterloo.

The seeds of the project started with reading the 2003 July/August article in TCA describing Burlington's L.B. Pearson High School's Radio Club project. The proverbial light bulb went "on". Something like this would be a nice fit with parts of our Science programs and, it had the potential to expand into some of our Tech programs.

We have always had students interested in electronics, some even entering the field after college, but we did not have specific programs that would meet this particular interest.

September began with high hopes and grand expectations. I did expect some “bumps along the road” now and again, but just like the hobby, I believed that success would come from finding unique solutions to problems as they occurred. However the bumps have turned out to be a bigger than expected.

The two things we identified as being key to the project’s success were attracting students and quickly establishing a shack to demonstrate and teach operation. The goal was to have students work toward a licensing exam.

Attracting students was not a problem. When the program was outlined to my first semester students, the ones responding were the ones I wanted to get: above average, motivated, involved, open-minded, curious and good leaders. And that turned out to be a big problem.

Many of them were in their final year. Besides being eager and motivated, they had an urgent and immediate goal: get into the post-secondary program of their choice. Some of these students have very heavy academic loads and are involved in other school activities as well as having outside interests. Some can’t fit much more into their days! Some have to learn to say “no” to things. To their credit, the interest is still there. Our learning sessions were not always well attended, but we may yet have a few of them writing a basic operator’s exam late in May or early June.

Even if only a few write a basic operators exam, some awareness of amateur radio will have been created, and seeds put in place for next year, when I will be targeting the younger students. I have three Grade 11 students involved this year who can provide some leadership next year and some younger students are beginning taking notice of the equipment.

As for getting the shack up and running, that was another story.

The day after I received confirmation from B.J. that we could be part of the program, word was received that the Science area, site for the shack, would be up for additional rooms and renovation, possibly as early as this coming June.

So the question became: where to put the shack and how much would we want installed before it was possibly dismantled to allow for construction?

I decided to go with basic a 2m/440 MHz VHF/UHF system so that we could work the many local repeaters as well as the IRLP. By Thanksgiving, the location of the shack was decided and a very basic mast system was designed that could be added onto for HF and 6 m. One consideration was that it could also be easily dismantled and stored if necessary. Requisitions for the work were completed. All the costs for this being were covered by the district school board

By mid-November, the mast and mounting brackets were made up and installed. In the meantime, a Tram 1481 Dual Band vertical antenna was obtained, 200 feet of RG-8U was donated and then we waited for it and the feedline to be run and the basic electrical service to be installed.

And we waited. And waited some more.

In late December, an ICOM 3200A dual-bander was loaned to us by Tedd Doda (VE3TJD). We didn’t have electrical service or a compatible power supply but we did some limited operating on simplex frequencies powered by a 12V gel battery and a dual-band mag mount attached to a metal AV cart. It’s amazing how quickly the battery was drained!

Christmas and January both came and went. By then I had pretty much given up on having much more operating opportunities or a better system until the Spring.

On the last day of the semester, Friday, February 4, a very bright, sunny day in southern Ontario, with a high of about 8°C, and under time pressure to have everything ready for the first day of second semester classes starting on Monday...a lone electrician arrived to do electrical service work and install the antenna and feedline. We were done by 3:00 p.m. and I knew then that Monday’s semester start would not go as smoothly as I would have liked.

However, all components worked like a charm. It felt good to get a great signal report with full quieting into the repeater. But, I also knew that I had lost my advantage over the students: with the start of a new semester, they were

no longer in my classes. Without the daily contact it would become more difficult to co-ordinate meeting times. I would also be trying to bring in new students.

During this time period, we benefitted from a loan by Bill Riddell (VE3WFM) of a Heathkit SB303 receiver with speaker for HF and SW monitoring. Later on, Bill also provided us with a power supply for the ICOM.

As it turns out, the site for the shack and the location of the antenna will be permanent. The room will be under renovation but that won't take place until 2007 under the current construction plan. The renovation will allow for permanent cabinetry to be designed. In the meantime, we are waiting on some temporary cabinetry to provide a better measure of security for the rigs when they are not in use.

All in all, I have to be satisfied that we have something in place and some students interested. It has taken a lot longer to get up and running than anticipated. So what have we learned?

A project like this takes some time. It may have been better to focus on getting a shack installed this year and then to have worked on the instructional part next year. It became difficult to manage all aspects. Now that the rigs are in place, I can use them in some of my grade 12 course work this semester that involves communication technology and relate the electronics part of my courses to the radio technology. That may produce additional interest.

However, the new students that are showing interest are presenting the same concerns. They will be wonderful future members of the amateur radio community...if only they can find the time to work through the instructional part.

As a result, I have begun to adapt the lesson work into a self-study program that they can access on-line. More work will have to be done this summer, especially in turning some of the hands-on parts into self-guided explorations of the electronics basics. Next year, a firm set of time lines and expectations will be established to guide students. These won't eliminate all the problems, but should help somewhat.

I have also found that distractions definitely do not help to get a program like this established. Besides teaching, I am also Department Head, with school and system projects and initiatives on the go. This, plus dealing with the construction and renovation planning, had an impact on what could be effectively planned and accomplished. However, it is not all negative.

The most marvelous thing of all was the synergy produced by the many parts. The whole-hearted support of my school administration and school superintendent was wonderful. The work of the maintenance department to put together a mounting system and 14 foot mast that could be put in place by one man... beautiful! The response by club members to my request for equipment... generous!

I would like to finish with some acknowledgments. To Bj. and the rest of the YEP advisory committee, thank you for the support and the input that you provided from time to time. I would also like to acknowledge the support given by the executive of KWARC. Any student who becomes licensed will become a club member for year and enjoy the privileges we provide. They are willing to continue to provide support and equipment as the program develops. Besides Tedd and Bill, our technical Committee Chair and Program Manger, who loaned equipment from their personal collections and provided expertise, I would like to acknowledge the contributions of Gary White (VE3GWF) for the RG-8 and for supplying other small components useful for teaching, and Gerry O'Robko (VE3DYY) for contributing another power supply that can be used for teaching purposes.

I will be looking forward to trying to set-up some contacts through IRLP with other YEP schools later in May or early June.

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