



MAY 2017

Volume 6 Issue 5

VE3ERC-LUB

President: Joyce VA3WXU
Vice-President: John VE3JXX
Secretary: Tom VE3DXQ
Treasurer: Reg VE3RVH
Trustee: Al VA3TET
QSL Manager: Judd VE3WXU
Repeater Manager & Maintenance:
 Carl VE3FEF
Website Admin: Ted VE3TRQ
Lighthouse: Bruce VE3QB
Maple Syrup Display: Judd VE3WXU
 Joyce VA3WXU
Newsletter: Bob VE3IXX

ERC REPEATERS

UHF 444.700 TONE: 131.8
UHF 444.700 TONE: 123.0
VHF 147.390 + TONE: 123.0
EMERGENCY SIMPLEX: 147.51
UHF- IRLP node 2404
VHF- IRLP node 2403, ECHOLINK node
VE3ERC-R

In an emergency, tune
Into our repeaters,
UHF 444.700 or
VHF 147.390 or
HF 3.755 LSB or
Simplex 147.510
For coordination and
assignments.



Radio Amateurs
of Canada



It was a dark but moonlit night!



THE PREZ SEZ!

This club is Radio-ACTIVE

This club is Radio-ACTIVE

President's Update for MAY 2017

A New View.....

The Call of Hamvention



Every Ham Radio operator knows about Hamvention and most will want to go to Dayton, Ohio to take part in it at least once. After all, it is the greatest, largest hamfest of them all. Going there is very much like being on a ham radio mission or even a pilgrimage. I don't mean to suggest that Hamvention is a spiritual event or that it is a perfect place to go to because in many, many ways, it's pure mayhem there. (Maybe we should be calling it "mayham".)

For example, once you are in Dayton, getting to the venue itself can be a bit problematic. In order to get to there, you can take your car or a bus. Either one will have to go on a two-lane road where both transportation moves at a snail's pace. Eventually, it takes about two hours before you actually get where you are headed.

Once you make it to the site, you are first welcomed by the largest parking lots you have ever seen in your life...**ever!** Thousands of cars every size, colour, make, age, in every direction you look. My recommendation for you is to take a bus, because at the end of the day you stand a much better chance of finding a bus than your own car.

Once the vehicle is parked, you get on a golf cart that is free of charge. It takes the people to the middle of the action where tents and buildings and structures are selling every pos-





sible "ham thing" you could ever want...**ever!** One little problem is that the owners of the thousands of the parked cars are also under those same structures. The sheer amount of people that are there results in really long lines waiting to purchase anything and causes cozy crowds when trying to get around. Another thing you can count on for sure is that it is likely going to rain at some time and at some point you will be walking around in mud. It is just another part of the adventure of going to Hamvention.

Judd and I made the trip to Dayton the first time this year. We had said that it would be our one and only time to do the trip, but, we had not even left the hotel that we got the "Call" again and knew that we would be going back next year. We hope to see you there too.

73 Cheers Joyce

VA3WXU



AGM PRESIDENT REPORT

MAY 24, 2017

BY JOYCEE HODGE VA3WXU

Looking back to last year this time, a very radical, but brave decision, was made by the Elmira Radio Club. They acquired a woman for their president. I for one, will never forget the looks on their faces that night. I remember that someone sitting behind me, whispered, "What the heck just happened?"

Well, what has happened, is that a whole year has gone by since that night, and here we are still together. I don't know about you, but, for me, I am very glad to have shared this experience together with you.

I'm sure you remember what Rich often observed to us when he was the President. "Chairing an organization is like playing Santa Claus. In his sleigh, he looks like he knows what he is doing and where he is going. The reality is that the reindeer are the ones who know how to fly, and they know where to go," Of course what he meant was that the members in our club are the ones who know how to fly and where to go.

And this is what they have done:

We have been busy this past year. We continue to search for ways to raise funds for our club. At this point we only get revenue from membership fees and the selling of other people's equipment. Reg made a suggestion that we could also give donations to our club. We have received money and a purchase of an antenna for our club this year. One other idea was suggested to sell some of our repeaters at the hamfest.

Whenever we can, we continue to try to get permission to put up an antenna at the water tower and hope that one day we might get a station at the community center. Rich and John have worked hard putting this idea in the mind of the people who could make it happen....and will continue to do so.

There has been an ongoing suggestion that the club's equipment needs to be itemized and its location known. Several people also stated that it would be great if we had a station at the fire hall on hand for the use of any member whenever they want. Money seems to be the thing that hinders this project from happening, along with the possibility that the equipment would be misused or stolen.

Early in the year, Dave Brennan wanted our club to be involved in an event about emergency preparedness which actually finally happened last week. This event went very well for ERC. We made contacts with the other groups that are involved in emergency preparedness and shared what we would do during a disaster. I believe that Dale Martin will ask us to attend many more of these events in the near future.

The Bill Graham Memorial Supper Meeting has become a new tradition for our club. In October, we will meet at a restaurant at 5:00 pm in remembrance to Bill and share a meal together. Hopefully, Maree and Darren will be able to attend this year.

Digital Basics introduced instructions how to use Fldigi and simple computer to radio interface. Every fifth Wednesday in a month will continue to have a Net to learn and practice the basics of digital radio. If someone did not participate, It is never too late to join in. There are several members who will help you and catch up to where everyone else is. No one needs to be left behind.

There are several Nets running on different bands every day and weekly that keep us connected and that practice our radio skills.

This past year we have enjoyed a wide array of presenters that offered up really interesting presentations at our meetings. We have seen Joycee, Frank, Rich, Judd, Ted, Al, John, Paul (VE3PVB), Pierre Fogal, and Mike deBoer. All of them brought an eye-opening diverse topic that made us think and wonder if...

We have also been treated to a vast variety of interesting articles and general information in our Newsletter. The writers were Bob, Joycee, Rich, Judd, Brian, Bonnie (VA3IXX) and Paul B. These articles teach, explore, and open eyes to both the history and the future of Ham Radio. Tom's Minutes reflect the record of what happens at our meetings and they make for a good read also.

Several members participated in several events starting with Point Clark Lighthouse, Elmira Maple Syrup Festival, Emergency Preparedness Open House, and Field Day in June. So far this year, there has been huge membership participation at all venues.

This year several of our members participated in reaching out to other clubs and helped them at their events.

All of the above activities and events will continue to be done during next year. We will explore adding field trips and participate in more civic minded events as well. Educational courses will be taken and shared. The daily and weekly Nets will continue.

ELMIRA DIGITAL TRAINING ...

By JUDD VE3WXU

Digital Training this month will be a bit different. Those wishing to participate will not be required to check-in or respond on air. It will be a simple listen and copy exercise, a little advance prep will be required of those interested. I have suggested those interested download, install and learn FLDIGI. In our next exercise, you'll need to download, install and configure FLMSG and FLWRAP. Configuration is VERY important as FLDIGI needs to know the location of FLMSG to allow FLWRAP to do its job.

The exercise will begin at approx 21:05 hrs local after the weekly FM Net. A call out and preamble will precede the transmission of a digital message using FLDIGI. The message will be created in FLMSG on a ICS-213 template. FLDIGI is required to receive the message, FLWRAP and FLMSG are required to display the completed filled message form. The message contained in the form is part your '**KEY**' to completing the exercise successfully. The message will be transmitted more than once, with a timing space to allow operators to correct any receiving station difficulties.

After obtaining the '**KEY**' phrase, you are ask to send the content to Net Control using the email address 've3wxu@winlink.org', subject line, if not using WinLink, the subject line should contain the following: **//WL2K**, followed by you subject, if you like. The message section should **only** contain, your '**CALL**' and the '**KEY**' message received. A bit reversed, but this will be your actual net check-in, check-ins will be accepted up to 23:59 hrs local time, 2 June 2017. Confirmation of your check-in will be sent via email upon receipt, with comments if necessary.

Back-of-the-Napkin Eyeball

QSO notes and stuff

by Rich, ve3DCC

Three interesting threads have worked themselves into the media... and into our coffee conversation, too.

The common theme is computer security and encryption.

The first item was a celebration on Friday May 12 at the University of Waterloo of the Accomplishments of Dr. William (Bill) Tutte on the occasion of what would have been his 100th birthday. It was also a celebration of what Churchill described as the "greatest intellectual achievement of the second world war". Dr. Tutte was able to describe, decipher and model the German High Command encryption unit called Lorenz (and Tunny as in Tuna Fish, by the British!!). Dr. Tutte passed away a few years ago and he is buried next to his wife Dorothea in the West Montrose cemetery just outside Elmira. As a young expert in Combinatorics and Optimization, he was sent to Blechley Park, the secret British decryption centre. As I have described in an article 2 years ago, when radio transmissions took on a peculiar, warbling, "singing", the Allies realized that the Germans were no longer using the Enigma to encode characters to send in Morse. Ham operators who had been monitoring and reporting their "copy" so a central office could patch together parts of a transmission could NOT read this traffic. Fortunately, an error by a sloppy operator created a mathematical relationship between two almost identical messages that allowed Bill to "see" a pattern for the 12 bit encoding wheels. By the way, the tones are very similar to the BPSK tones that I described last month. There were only 80 units in use and they were used to send top level, ultra-secret traffic within the German High Command.

In the to and fro of sending messages, the encryption process was, and still is, a critical part of maintaining security.

The COST: the Allied were able to read high level German orders of battle. They (barely) won the war.

In a strange side-step, there was a disturbing related event....

Thousands of computer owners woke up on that same Friday morning to find that their computers had been hacked and their hard disk contents ENCRYPTED. The perpetrators demanded payment in bitcoin before releasing the computer. There was a short time limit with the threat that the data would be erased completely within hours. Although this item seems to have dropped off the media radar of late, attacks apparently have persisted. Disaster was staved off by the discovery within the code of a site address that was used to facilitate incursions. It also turned out to be the enabling switch for the virus. The fear, of course, is that the discovery of the "kill" switch in the software that was used to render it inactive will be fixed and the plague released again. The ransomware uses a pipe into the operating system apparently discovered by the US NSA and used by them to access computers on the internet. The source code was made public via an anonymous leak. As of May 25, some parts of the code seem similar to earlier discovered North Korean code.

The COST: Many who did not have recent backups of their computer hard drives were put in a compromised situation. Many lost their data. Much Grief!!!!

The COST: Many who did not have recent backups of their computer hard drives were put in a compromised situation. Many lost their data. Much Grief!!!!

The final item is a document that found its way into the public domain just 2 weeks earlier. It was report by BitDefender, a Romanian Internet Security Software Company. The document called "Bitdefender-Whitepaper-Netrepser-A4-en-EN-web.pdf" described Netrepser-a JavaScript-based Targeted Attack virus. It is described as a "a complex, targeted malware framework that, unlike a military-grade APT, is 'stitched together' with freeware utilities to carry a complex job through to completion." Those complex tasks include "theft of information, ranging from keylogging to password and cookie theft" and it is built around a controversial recovery toolkit provided by Nirsoft. "The first contact is in the form of malicious email rigged with DOC attachments". OUCH!!!!

The COST: compromise of passwords and loss of important personal information, often without your knowledge.

In all three cases, the COST is beyond inconvenience.

The lesson that you should come away with is this: Sloppy Operating procedure (just as in Ham Radio) is dangerous. So.....

Keep backups of all important data offline—use USB keys, mobile hard drives etc.

Consider leaving a USB in a safety deposit box at your bank.

Do not click on links within email that appear(s) suspicious. Often, if you hover your mouse indicator over the link, the true address will appear. Beware of convoluted and long number addresses. Do not click on unexpected email even if it seems to come from a "friend".

Do not "unsubscribe" or verify your email address. Beware of unexpected "updates" offers.

Never activate JAVA or allow uninvited scripts or software to download and execute on your computer.

Since the payload typically is a script that you must activate by clicking, exercise extreme caution. Take a Deep Breath before pressing the key.

And above all,

Keep your virus checking protocol active and up to date.

Be paranoid.... Very, very paranoid.

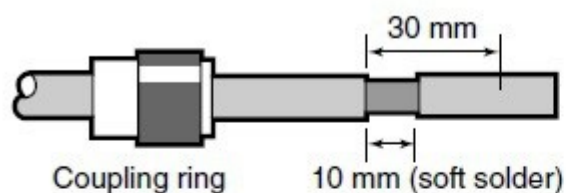
May the Force Be With You!!!

De Rich, ve3DCC.

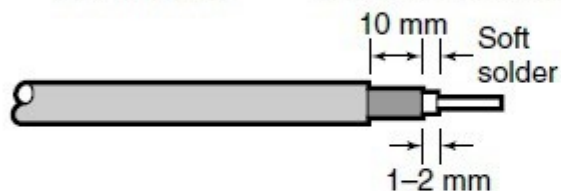
**CONGRATULATIONS
TO TRACEY GOULDING
FOR PASSING HER AMATEUR RADIO BASIC
QUALIFICATION**

HOW TO ATTACH A PL-259 CONNECTOR

PL-259 CONNECTOR



① Slide the coupling ring down. Strip the cable jacket and soft solder.



② Strip the cable as shown at left. Soft solder the center conductor.



③ Slide the connector body on and solder it.



④ Screw the coupling ring onto the connector body.

(10 mm \approx $\frac{3}{8}$ in)

WEDNESDAY NITE NET CONTROLLERS

APRIL 19 - TOM VE3DXQ

APRIL 26 - MEETING

MAY 3 - PAUL VE3PVB

MAY 10 - TRACY (VE3JVG)

MAY 17 - BRIAN VA3DXK

MAY 24 - MEETING

MAY 31 - BOB VE3IXX + DIGITAL GROUP

JUNE 7 - JUDD VE3WXU

JUNE 14 - TED VE3TRQ

JUNE 21 - AL VA3TET

JUNE 28 - MEETING

JULY 5 - REG VE3RVH

VE3ERC Elmira Radio Club Inc.

Minutes from MAY 24, 2017

1. Open and roll call.

The meeting was open by our President VA3WXU Joycee at 7:30 pm.

Roll Call: VA3TET Al, VE3DXQ Tom, VE3WXU Jud, VA3WXU Joyce, VE3QB Bruce, VA3DXK Brian, VE3TRQ Ted, VE3EIX Harry, VA3GWM Gord, VE3CXU Doug, VE3JMU Jim, VE3AHP Rob, VE3EIX Harry, VE3JXX John, VA3KXX Kathy, VE3PDC Paul, VE3JVG Jason, VE3PVB Paul, VE3RVH Reg, VA3FJM Frank, VA3GSM Greg, VE3IXX Bob, Tracy, VE3CDF Andy, Mike VA3OER, VE3YBM Brian, VE3RVH Reg, VE3XTM Terry

Announcements:

VE3JVG Jason said all bases were covered for the Ham Fest, but there is room for extra volunteers and to let him know at the end of the meeting or contact him if you are interested.

VA3TET Al said he would like to have 2 or 3 people there at 6:30 am to help set up the 80 m antenna for ONTARS.

Emergency Preparedness Open House:

John VE3JXX advised that he and VA3PDC Paul were able to set up a G5RV and a 2 band mag-mount on the roof of the Arena ok. John VE3JXX said he now has a new climbing buddy. John said he also had his go-box there but did not operate that much as he was busy talking to staff regarding getting a permanent antenna and Radio Room there. He even spoke to the director of the Arena. He also said the Mayor came by and she spent at least 5-10 minutes at every exhibit.

He also spoke to the person involved in donating funds for the Equipment we need and explained how the commercial quote that he had was not a good deal.

VA3WXU Joycee passed around a thank you Flyer that showed all the participants Logos.

VA3FJM Frank said he brought his travel trailer to McLennan Park to be part of the Emergency Preparedness Open House and ran the Friday morning ERC net. He said that he changed the net name to Kitchener Base and gave other locations a base name as well. He committed to 4 hrs at the park. He had a HF antenna as well as his VHF/UHF mobile. He said they had Turkey point base as well as Fergus base. In an hour he had from Lake Eire to Kitchener, Elmira, and Fergus linked up. He advised that Bob VE3IXX in Fergus was a big help with his cross band set up.

Joycee advised the kids were given the emergency check list pamphlet. She also said she sent a letter of thanks to Amanda, and Dale.

Presentation- Mike deBoer Provincial Constable O.P.P.

Mike said he would like to speak about emergencies in general. Mike said when you come across an emergency situation there are certain things you have to ask yourself. What do I do? What I am dealing with? What are my capabilities? What are the dangers? What are my Authorities? What are my responsibilities? What are my Liabilities? Am I safe?

This was the recurring theme throughout the presentation. The presentation was a power point with some videos with examples of different type of emergen-



cies. Mike also injected a lot of humor into the presentation, and got a lot of interaction with members present.

Mike also advised that under Ontario Law you are not compelled to do anything. However if you do get involved there is the Good Samaritan Act which provides you with a measure of protection against Liability.

Executive, Committee Chairs, and Members

Minutes from previous meeting: Tom VE3DXQ asked if there were any errors or omissions. None were mentioned. Tom made a motion to have minutes accepted 2nd by Ted VE3TRQ. Carried

Treasurer's Annual General meeting report: VE3RVH Reg advised he sent all the notices out reminding members of their annual dues. He said he had a very good response so far and is waiting for a few more to come back to him. Reg gave the current Balance and mention that part of it was from the sale of VE3ETK Bill Graham's equipment. He advised that the remainder of Bill's equipment will be at the Ham-fest June 4, 2017. Reg made a motion to have his report accepted 2nd By Al VA3TET. Carried

Presidents Annual General Meeting Report: Please see Joyce's VA3WXU report in this month's ERC newsletter.

Safety- Officer: VE3DXQ Tom advised no accidents or injuries to report. He said he still has safety vests, cones and also Safety Glasses.

Digital Report: VE3WXU Judd said the digital net will still go ahead on Wednesday May 31, 2017 after the regular Wednesday net.

QSL Manager: Judd VE3WXU said he is a little behind, but will get caught up soon.

Antenna committee: Jim VE3JMU, John VE3JXX, Al VA3TET nothing to report.

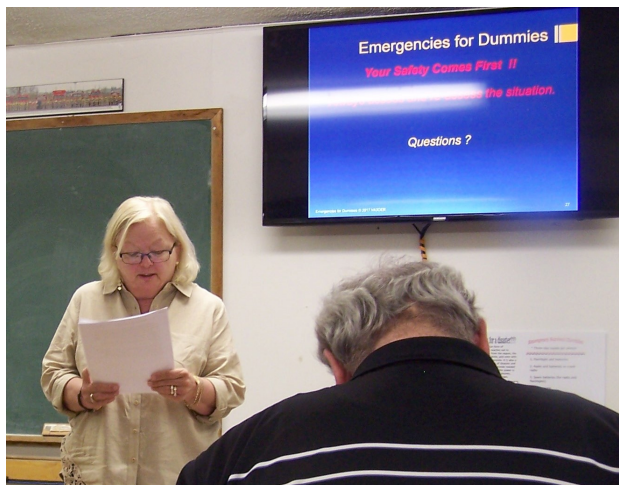
Lighthouse Report: Al VA3TET advised that everything is all set, and is hoping for a good turn out this year.

Nomination Committee: Paul VE3PVB advised that AL VA3TET is stepping down from the position of Trustee. Our Incorporation requires that we have a Trustee. John VE3JXX will be our new Trustee. There was a round of applause for the service Al did as our Trustee.

The incoming Executive in September is Joyce VA3WXU (president), Brian VA3DXK (vice president), Tom VE3DXQ (secretary), Paul VA3PDC (Treasurer) John VE3JXX (Trustee).

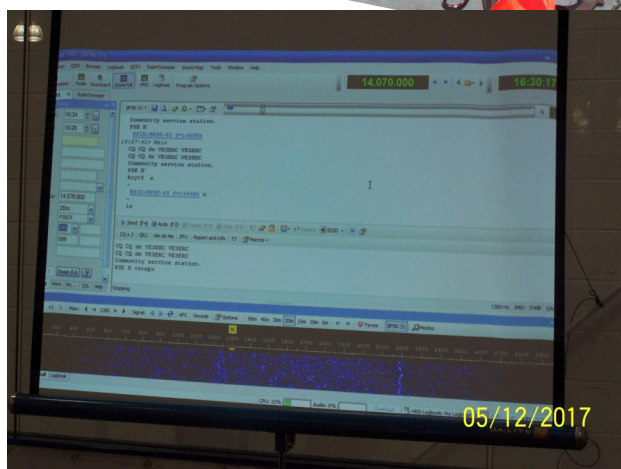
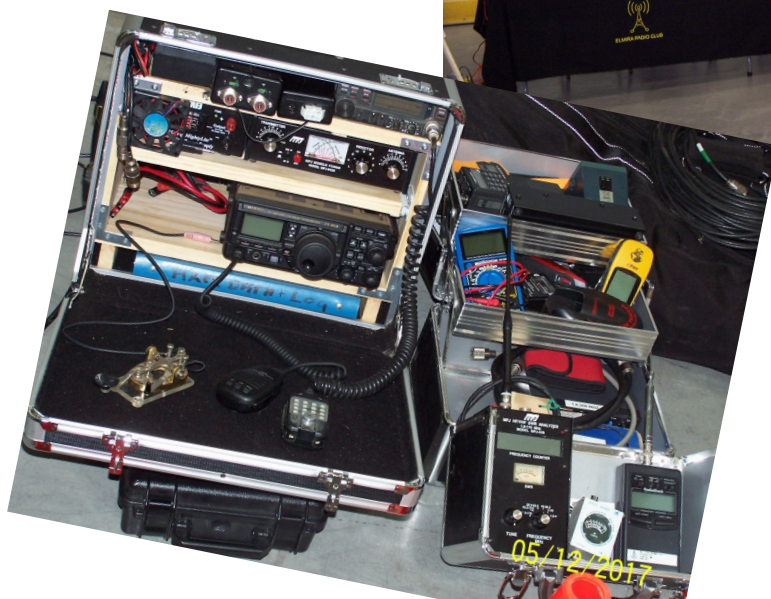
There was a round of applause from all for Reg for his 30 years as treasurer.

Meeting closed at 9:00 pm



PHOTOS OF THE OPEN HOUSE

Submitted by Joycee Hodge VA3WXU



Visit Us at
www.ve3erc.ca

Light Your Room For A Whole Month By Using A Potato!!!

A single potato which has been cooked for eight minutes can create a battery which is 10 times more powerful than a raw potato in accordance with one researcher.

This experiment was conducted by Haim Rabinovitch, professor of science and agriculture in Israel. He took potato quarters and placed them between a flat copper cathode and a zinc anode, which were connected with wire. He discovered that these units can light a room with an LED light for up to 40 days.

This information is very useful, especially to the parts in the world where technology is not so developed. This discovery provides them many opportunities and possibilities.

But why use potatoes and no other vegetables? Well there are two reasons. First, potatoes can grow anywhere in the world, in every possible climate and second you can find them everywhere.

To view the video, go to:

<https://nutrigoft.com/light-room-whole-month-using-potato-video/>

RAC BULLETIN For immediate release: May 26, 2017

Bryan Rawlings, VE3QN, RAC Special Advisor, is in Geneva, Switzerland attending Preparatory Meetings for the World Radiocommunication Conference (WRC).

The current meetings are the third of a series of meetings which will continue until just before WRC-19 now scheduled to be held in Geneva from October 28 to November 22, 2019.

Preparatory Meetings are almost always two weeks in duration and are held at the International Telecommunication Union (ITU) headquarters in Geneva. This time Bryan is attending as a member of the Canadian Delegation and also as an Expert Consultant for the International Amateur Radio Union (IARU).

Preparatory Meetings primarily prepare documents on the agenda items identified for the upcoming WRC. They are in turn preceded by meetings and the submission of documents from the participating administrations, for example, Canada through its authorized government agency, the Department of Innovation, Science and Economic Development (ISED; formerly Industry Canada). Canada is represented by ISED. The RAC representative is made a member of the delegation by invitation and Bryan's role is to advise on Amateur issues.

The principal Amateur Radio issue is an international authorization of the 50 to 54 MHz band in ITU Region 1 (Europe, Africa and the Middle East) – not a critical issue for Canadian Amateurs.

Also under consideration are:

- 1) an expansion of Radio Local Area Networks (RLANs) into the 5 GHz band. Amateurs have a secondary allocation here in 5650 to 5925 MHz which we already share with the Primary Users and with ISM (Wi-Fi, etc.).
- 2) proposals to study frequencies for wireless power transfer, e.g., charging cellphones and bigger devices. Depending upon the frequencies planned and the technical characteristics there may be a significant potential for interference to Amateurs.
- 3) studying the possible frequency range for International Mobile Telephony (IMT) in a range between 24.25 and 81.5 GHz. Radio Amateurs will be carefully watching our Primary allocation in 47 to 47.2 GHz.

As was the case during the WRC-15 conference, Bryan will be tweeting comments on Amateur Radio issues from the meeting using the hashtag #RACatITU. You can also follow him via @ractweets.

Bryan will also be including a report in the next issue of *The Canadian Amateur* magazine at the conclusion of the meetings.

For more information visit the RAC website at: <http://wp.rac.ca/wrc-preparatory-meetings-may2017/>



Radio Amateurs
of Canada

Alan Griffin
RAC MarCom Director

EDITOR'S NOTE: As editor of the ERC newsletter, I am always on the look-out for interesting articles. Almost every month Dan KB6NU sends me his blog (free for copying). Most times he deals with issues affecting American hams but sometimes he talks about topics of interest to all hams of all countries. Check out this article.

Growing the Ranks vs. Growing the Enjoyment

By Dan Romanchik, KB6NU

Because I teach amateur radio classes and publish a series of popular amateur radio license study guides (www.kb6nu.com/study-guides/), I often get kudos for "growing the ranks." In fact, Gordon West, WB6NOA, told me this just last week, when he stopped by the booth I was in at the Dayton Hamvention. I'm paraphrasing a little, but after telling me that he's heard good things about my study guides, he said something like, "You're doing good work in helping get more people into ham radio."

People say that as if this is—or should be—the ultimate goal of teaching a license class. While this may be one of the goals, if that's your primary goal, I think that you're barking up the wrong tree.

In a way, creating more hams is selfish. If there are more licensed amateur radio operators, they say, then amateur radio will have more political clout with the FCC and with Congress, making it easier to pass legislation like the Amateur Radio Parity Act. While this may certainly help the new ham down the line, its main thrust is to reduce restrictions on those who are currently hams.

My goal in teaching amateur radio classes isn't to create more hams. Instead, my goal is to help more people have fun with ham radio. The first step in helping people have fun with ham radio is, of course, helping them get their license. I do that by publishing my study guides and teaching ham classes.

The next step, and I'm only really getting started on this right now, is to help people learn what they need to know to become better ham radio operators. That's why I got a little excited when I saw the article, "Making a Good hobby Better Through Post-Licensing Enrichment" by Tim Busch, N0CKR in the latest issue of *Radio Waves*, the ARRL's email newsletter for amateur radio instructors.

In the article, Tim describes several activities that his club encourages, including a "new ham net" and the Field Day GOTA station, but he also details a program of "mini classes" that will teach specific skills related to ham radio. These include:

- Programming Radios and Getting on the Air

- Soldering 101

- Multimeter 101

- Build and Use a Roll-Up J-Pole Antenna



Build and Use a Satellite Antenna

Foxhunts

Operating Digital Modes: IRLP, AllStar, D-Star, EchoLink, etc.

Remote Operation

Software-Defined Radios

Transitioning from VHF/UHF to HF Operating

Chasing Awards

Learn CW

Contesting

Tim writes, "Each class is intended to be no more than two hours at a sitting, so they can be held before a monthly club meeting. The variety of subject matter allows many club members to get involved in leading a topic. Materials kits are prepared in advance, so students walk away with practical items they can use at home."

I think this is a great set of classes, and I plan to try some of these in the fall. A couple of other topics that occur to me are:

Power Supplies 101

Mobile Operation 101

ARRL 101

RFI/TVI 101

Helping new hams—and old hams—have more fun with amateur radio is a lot more satisfying to me than just "growing the ranks." It would be nice to say that we have a million licensed radio amateurs in the U.S., but I think it would be a lot more valuable to the hobby to say that a larger percentage of licensed hams were active and enjoying ham radio. I know that, for me, increasing the number of active, engaged hams would be more personally satisfying than simply creating a lot of new licensees.

When he's not working on helping new hams, Dan operates CW on the HF bands and blogs about amateur radio at KB6NU.Com. If you have a good idea for a new ham "mini class," e-mail him at cwgeek@kb6nu.com.