JANUARY 2021 Volume 10 Issue 1

VE3ERC-LUB

President: Brian VA3DXK
Vice-President: Ted VE3TRQ
Secretary: Kirk VA3KXS
Treasurer: Paul VA3PDC
Trustee: Wes VE3ML
QSL Manager: Tom VE3DXQ
Repeater Trustee: Wes VE3ML
Website Admin: Ted VE3TRQ
Lighthouse: Al VA3TET
Maple Syrup Display: Al VA3TET
Newsletter: Bob VE3IXX
ERC Website: https://ve3erc.ca

ERC REPEATERS

UHF 444.700 + TONE: 131.8
UHF 444.700 + TONE: 123.0
VHF 147.390 + TONE: 123.0
VHF 147.255 + TONE: 131.8
EMERGENCY SIMPLEX: 147.51
UHF–IRLP node 2404,ECHOLINK VE3ERC-L
VHF– IRLP node 2403,ECHOLINK 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.

ARISS

Sends some spectacular SSTV pictures to end 2020.

See page 3.

THE PREZ SEZ!

This club is Radio-ACTIVE

President's Update for January 2021

Hams from the beginning have always helped other hams, so it is no surprise that Barry VE3ISX, the net manager for ONTARS has been at the forefront in helping out again. John VE3BQH from South River lost his home in a tragic fire on January 9. The home was not insured and John literally lost everything.

Already, hams have stepped forward with donations of household items and money.

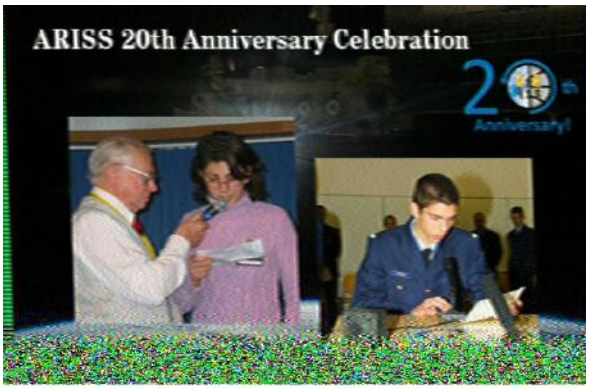
Kudos to Barry and all the other hams who have stepped forward to help. After the initial shock, John said that he is hoping to rebuild a cabin.

The ONTARS website has been updating information on items that John needs, so if you have any extra household items lying around, consider donating. The ONTARS website has all the information regarding donations or pick-up of items.

All in all, it just shows what a great fellowship it is in belonging to the greater ham community.

A thank you to Tony VE3DWI for these great SSTV pictures he received from the International Space Station (on 145.80 Mhz) as it passed over our area. Each pass lasted about 10 minutes and allowed for about two pictures.

ARISS
ENDS 2020 WITH A BIG BANG



What made all these SSTV pictures possible is the folded dipole on Tony's tower– his "eye to the sky"…

ERC Elmira Radio Club Inc. - Meeting Minutes

January 27, 2021

Attendance - Members

Bill Reid VA3QB
Bob Koechl VE3IXX
Bruce McLellan VE3QB
Doug Kuhn VE3CXU
Jack Sinclair VA3WPJ
Jim Heidmiller VE3JMU
John Linnerth VE3OVO
Ken Buehler VE3KCY
Reg Horney VE3RVH
Rich Clausi VE3DCC
Rod Murray VA3MZD
Tom Mahony VE3DXQ
Tony Lelieveld VE3DWI

Attendance - Officers

Ted Rypma VE3TRQ - Vice President
Paul Curtin VA3PDC - Treasurer
Wesley Snarr VE3ML - Trustee
Kirk Sinclair VA3KXS – Secretary

Guests:

Judd Hodge N4WXU/VE3WXU

Meeting Location: Zoom

Meeting Minutes

1. **Call to Order:**
    a. Meeting was called to order by Vice-President, Ted Rypma VE3TRQ at 7:32pm and he welcomed everyone present.
2. **Roll Call:**
    a. President Brian Filbey VA3DXK sends his regrets.
    b. Roll call established those present and it was noted quorum had been attained.
3. **Approval of Agenda:**
    a. Ted displayed the agenda on screen, which had also been circulated prior to the meeting.
    b. MOTION to approve the agenda as presented.

    Motion by: Bill Reid VA3QB

    Carried
4. **Secretary Report:** Presented by Kirk Sinclair VA3KXS.

a. We would like to welcome Rod Murray VA3MZD as the newest member of the Elmira Radio Club. This brings our number of paid members to 33. An updated roster was distributed via email by Paul Curtin VA3PDC.

b. Correspondence Received:

i. 3 additional eQSL cards from our August 22, 2020 activation of the Point Clark Lighthouse: Kirk Brown AD8AL in Ohio, Kenneth Marsh K8KRM in Ohio and Curtis Turner KB3CMT in Pennsylvania.

c. The amended ERC By-Laws & Constitution document has been posted to the Constitution & By-Laws section of the ve3erc.ca website.

d. Minutes of the November 25, 2020 meeting were emailed to members on the same day.

i. Roger VE3RKS noted via email that item 7.d.ii should have the phrase "our constitution requires a constitution committee" be amended to "our constitution requires a nominations committee".

ii. No other corrections to the minutes were noted via email.

e. MOTION to approve the amended minutes of November 25, 2020.

i. Bill asked if this confirms the bylaw updates are complete. Kirk confirmed they are complete and uploaded to the ve3erc.ca website.

Motion By: Kirk Sinclair VA3KXS

Carried

5. **Treasurers Report:** Presented by Paul Curtin VA3PDC

a. Paul displayed the details of the transactions for the months of December and reported the year end finances are done, taxes are done but cannot be submitted until AGM in May.

b. MOTION to accept the amended Treasurers Report

Motion By: Paul VA3PDC

Carried

6. **Presidents Report:** Presented by Vice-President Ted Rypma VE3TRQ.

a. Reminder to members that membership fees are due in March. Cost for RAC members is $40, non-RAC members is $50.

7. **Committee Reports:**

a. Safety Officer - Kirk Sinclair VA3KXS

i. Nothing to report.

b. Technical Committee - Bill Reid VA3QB

i. All work at the repeater site is deferred until weather is a bit better.

ii. Planning to add a power amplifier to the repeater side to improve the transmit capability of the VHF side. Tony has the power amplifier and Bill has a power supply. Goal is to get 50W output.

iii. Will work on a permanent solution to the waterproofing issue.

iv. GFCI tripped in the repeater recently. Bill and Tony's experience is that GFCIs are rarely used in repeater deployments as there are often issues due to RFI. Committee is planning to remove the GFCI plug. Ground is needed for the cabinet and the plan is to run a cable under the earth to the silo nearby which will be grounded.

v. The Cross-band repeater to the Alma site is running, however it automatically turns off just before scheduled nets and turns back on just after.

vi. Bill asked if the Echolink connection between VHF & UHF repeaters can be left on at all times. Ted indicated the issue of hanging tails needs to be resolved first. Ideally we are connecting all of the repeaters by radio, instead of Echolink. Connecting them via radio is the plan for this summer, then only one Echolink connection is needed for the whole system.

vii. Tony Lelieveld VE3DWI is looking for the manual for the 440 repeater. Jim Heidmiller VE3JMU indicated Carl Roney may have it and will work on trying to obtain it.

c. Nominations Committee - Rich Clausi VE3DCC & Tom Mahony VE3DXQ

i. Committee work is coming along nicely. Ted Rypma VE3TRQ has added his hat to the nomination for President. Still seeking VP and Trustee. People interested in running for any positions should email Rich and Tom to discuss nominating themselves.

d. Winter Field Day - Bill Reid VA3QB

i. Winter Field Day is this upcoming weekend and is generally a very relaxed and fun weekend. Bill sent an email on Jan. 17 with details of how to submit scores to have your score count towards the Elmira Radio Club. If anyone is interested in additional details, email the ve3erc@groups.io and Bill will reply.

ii. Starts at 2pm ET Saturday Jan. 30 2021 and runs until 2pm ET Sunday Jan. 31, 2021

8. Unfinished Business:

a. None.

9. New Business:

a. Registration of Point Clark Lighthouse on behalf of ERC Elmira Radio Club with ILLW.net for 2021

i. Paul Curtin VA3PDC has registered us already.

b. Summery Field Day

i. Bill Reid VA3QB indicated the current plan is to do it outside, spaced out as far as we need to be (within the rules).

c. Renewal of RAC Membership & Insurance. Do we have RAC Insurance?

i. Paul Curtin VA3PDC indicated the paperwork usually needs to be done at this time of year. Brian Filbey VA3DXK usually fills out the paperwork. Kirk Sinclair VA3KXS to email the executive to get the ball rolling and ensure it is completed.

10. Presentations

a. None.

11. Announcements

a. Paul Curtin VA3PDC mentioned that other events we typically participate in are likely cancelled such as the Maple Syrup Festival and CAER event.

b. Next Club meeting will be held via Zoom and is on Wednesday, February 24th, 2020 at 7:00pm.

12. Adjournment

a. MOTION to adjourn at 8:18pm

Motion By: Tony Lelieveld VE3DWI

Carried

Action Sheet:

Action Required	Reference(s)	Action By	Deadline Date
Contact Brian Filbey VA3DXK to determine if the RAC membership renewal paperwork has been	9.c.i	Kirk Sinclair VA3KXS	ASAP
.			

Hello Everyone!

Tom Daniel, VA3VRA again. For those who may be reading an article written by me for the first time, I'm a new Ham and a relatively new ERC member. I worked about half of my career as a Pilot and the other half as an Aircraft Mechanic, but just because I chose aviation as a career, doesn't mean that I'm completely dull, although some might argue that point. I had wanted to fly since I was four, but it all started when my grade five teacher caught me admiring the birds in the trees outside the classroom window and said, "Stop staring out the window young man. When you grow up, no one will pay you to just sit and look out a window."

I guess I showed her, but this isn't about aviation.

My iPhone Battery Replacement

I had an iPhone 6s which I kept in a black protective case. One day, as I was getting into my car in our dark garage, I placed the phone on the roof, which was also black. Yes, I drove off with the phone still on roof and after spending the rest of the day going over my entire route, I couldn't find it. The only bright note was that at least it wasn't a cup of coffee that I left on the roof as that would have made a mess. Instead, it was only a phone which cost a mere $1,046 to replace. Later, when my wife's older Samsung couldn't cope with the LTE/4G phone network, I gave her my iPhone 6s and replaced mine with an iPhone 8.

I can hear some of you already carping about the fact that, buying an Apple phone was my first mistake, but that particular choice goes back to a much earlier one that I'll save for a future article.

My wife's iPhone 6s crapped out - the battery wouldn't hold a charge for more than two-three days. She uses her phone for Facebook a lot, but that's her mistake and in forty three years I've learned, to not argue. Anyway, I ordered a battery from a very reputable online store called iFixit, a place where I'd bought batteries and other parts for iPhones in the past. The battery they sent was perfect except it had such a long and stiff wire/cable/lead/strap arrangement that it didn't fit inside the case. This is a battery that doesn't just slip in and simply make contact with some terminals. In fact, I don't know of any new smartphone that has a user-replaceable battery anymore. Most phones are like iPhones which you have to dis-

assemble, disconnect a bunch of wires for the touchscreen, camera, phone speaker etc. from the circuit board and then remove a cover plate for the battery connection which is a terminal that plugs into a multi-connection slot. Only then can you remove the battery wire/cable/lead/strap.

The fun doesn't end there as there are two plastic tabs that, when you pull on them, release the adhesive strips that keep the battery firmly in the case so that it doesn't move around. However, the plastic tabs usually break before the adhesive strips release. Some people suggest passing some dental floss between the battery and the case, but that doesn't work and you end up using something more substantial like a sharp piece of metal because the adhesive is that sticky. Heating the case with a hair dryer is supposed make it easier for the adhesive to release, but that's never worked for me in the past and it didn't this time either. You can imagine how it feels to poke around inside a $1000+ phone, prying out a NiMH battery with a sharp, pointy metal object. As in the past, the battery bent and I was waiting for the inevitable heat and/or smoke, ready to drop the battery or the entire phone into my "explosion proof pan," a.k.a. a pie plate. Luckily I didn't have to. I guess I just wasn't prying hard enough. It was only after all this that I discovered that the replacement battery wouldn't fit due to the excess of wire/cable/lead/strap. I flattened the old, battery back into something resembling its original shape, as best as I could, put it back into the phone and closed everything up, not bothering with the adhesive strips. I don't know why they use the adhesive since the battery doesn't flop around inside the phone anyway and I don't understand why the adhesive has to be strong enough to tie off a 747 in a tsunami. I guess they just don't want us replacing a battery and want us to buy a $1,000+ phone instead. When I finished, the phone still worked and the old battery accepted a charge so I probably hadn't cross-wired anything. My wife had her phone back, even if the charge only lasted two days.

I ordered a new battery from another source, hoping that it would at least come from a different batch with a shorter wire/cable/lead/strap, more like the original. About a week later it came and by then, the existing battery was holding a charge for only a day. We had to charge it every night and leave it plugged in when we were in the car. While studying Aircraft Maintenance, one of my instructors once said, "The main purpose of every repair is to finish with the same number of digits with which you started." According to that, I had over-achieved success once gain, as in addition to having all of my fingers, I hadn't set the house on fire and I hadn't broken anything.

The second new battery was thrown at our porch - it missed by several feet - sometime between a Friday and a Monday morning. We found out that there was a package out there when my wife let the cat out via the front door, something we hardly ever do, and there it was. I let it warm to room temperature before unboxing. The following morning, I took the phone apart again - I'm getting way too good at this - and replaced the battery. This time all of the wiring fit just like the original battery and its connector made contact with a satisfying "snap."

There is now an added bonus. The original battery was 1750 mAh while the new one says "2600 mAh" on it. If it's to be believed, it should have nearly 50% more capacity than the original. We'll see. And we'll also see if that added capacity is accompanied by heat, swelling and/or smoke whilst being charged, as all of those are possible.

As soon as I turned the phone on, it said "62%." When I plugged in the charger, the phone first drew 1.72 A and it got slightly warm. After a couple of minutes the current dropped to 760 mA and soon settled at 132 mA. I'm guessing that by then it was nearing its fully charged state. By the next morning the current had dropped to zero which made me conclude that the circuitry in the battery was talking to the charger and had told it to turn off.

Oh, and the phone turned on, asked for the security code, accepted the thumbprint ID and said "Telus" when it finally connected. It also connected to the home network and to a Tims' wi-fi. I guess it's working... and I still have all ten of my fingers. We'll see about that 2600 mAh capacity claim, but if it's no worse than the original battery when it was new, we'll be happy. By the way, this replacement battery cost $32 instead of the $89 plus tax that Apple charges for a

battery replacement at the "Genius Bar." Their repair may take up to two weeks and if they screw up, you may not get your own phone back, but a used replacement. My replacement battery also came with the tools needed to open any iPhone.

If you, a relative or friend ever need repairs on an iPhone, I'm now pretty confident doing them. In addition to batteries, iFixit also has replacement screens, speakers, cameras, home buttons and other bits for iPhones and iPads as well as other smartphones and tablets. They also have instructional videos and written detailed instructions for doing repairs if you care to do them yourself. Some are even easier than replacing batteries. I'd be happy to help out anyone needing smart device repairs**.**

73 Tom VA3VRA

CORRESPONDENCE

Last Month Dan KB6NU wrote an article **How to prevent ESD damage.** In regard to that article, Ted VE3TRQ wrote the following:

Bob, a comment on Dan's article on preventing static damage.

If you use an anti-static wrist strap, make sure it has a resister in it! About 1 megohm is appropriate. Failure do this can result in a serious shock hazard.

On materials resulting in static charges, two other serious contenders are scotch tape and elastic bands! In a dark room you will see the sparkles generated by these.

Ted VE3TRQ

And Dan replied with the following:

Thanks. These are both great comments.

Re #1, the commercial wrist straps that I'm aware of (including the one whose picture I included in the article inherently have a high resistance. The product description reads, "The wrist band is made of 7 conductive yarns with great conductivity and a high resistance up to 1 MΩ ,helping release the static electricity efficiently with 0.1s."

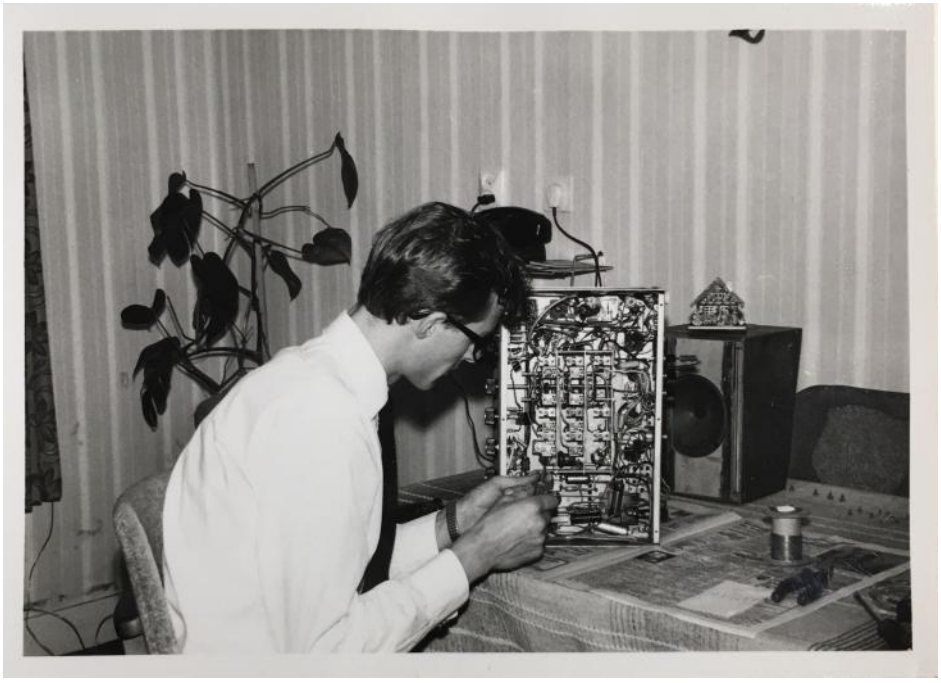
73!

Dan KB6NU
CW Geek, Ham Radio Instructor
Author of the "No Nonsense" amateur radio license study guides
Read my ham radio blog at **http://www.kb6nu.com**

From the PAST

Tony Lelieveld VE3DWI sent the following:

When I became a Ham in the Netherlands in 1967 with the call PA0MIH, I did not really have a "shack". My equipment consisted of a home made two meter converter in front of an army surplus receiver and an all band shortwave receiver for HF. The one picture shows me doing some repairs to it on the dining room table. I had no Grey hair then. Take note that I did put an old news paper on the table to prevent Marianne's ire to descend upon me.



The second picture shows a mast on the chimney with a cheap TV antenna rotor and a two meter horizontally polarized beam. There were no two meter repeaters in the Netherlands in those days and all communications were done on simplex on whatever frequency you could TX on.

Most TX's were crystal controlled. So we made a standard CQ call after which you tuned the whole two meter band looking for someone to return your call. There was no guarantee that the station coming back to your call was on the same frequency as you. Most transmissions were done with AM modulation as there were very few commercial VHF mobiles available.

The home made ladder line was on an 80 meter Zeppelin antenna. It was quite long and I made a stand-off from the eaves with a piece of 2x2. As luck would have it, there was a school playground behind our house and the 132 feet long wire traversed it to a house across the school yard. It worked very well. Conditions on HF were very good in those days and it was not uncommon to hear

stations from New Zealand on 80 meters.

One evening the doorbell rang and there was a rather angry fellow with a dead pigeon in his hand. It turned out that he had a racing pigeon hobby and one of them had flown into my wire antenna. I took the antenna down, went to the local store and bought a bunch of bottle corks. I drilled a small hole through each one and strung them on the 132 feet long wire about ever 30 inches. The pigeons could now see the wire and no more casualties occurred. The weight of the corks was so little, it did not noticeably droop the antenna wire. Luckily I never encountered any icing on the antenna as it would likely made it too heavy with all the iced up corks. And that my friends was my blast from the past.

73, Tony VE3DWI.

And Trevor Batstone VE7FYQ sent the following:

This is the latest addition to my ham-shack which I received a couple of days ago. I bought it purely for it's nostalgic reasons to display in my shack. It still keeps precise time.

73 and Happy New Year

Trevor VE7FYQ

Trevor also added:

I now use this as my dedicated UTC clock, as it keeps perfect time. I also have a battery operated MFJ dual clock but they both gain up to one or two minutes over a short period of time.

Links

Ontars— **www.ontars.com**

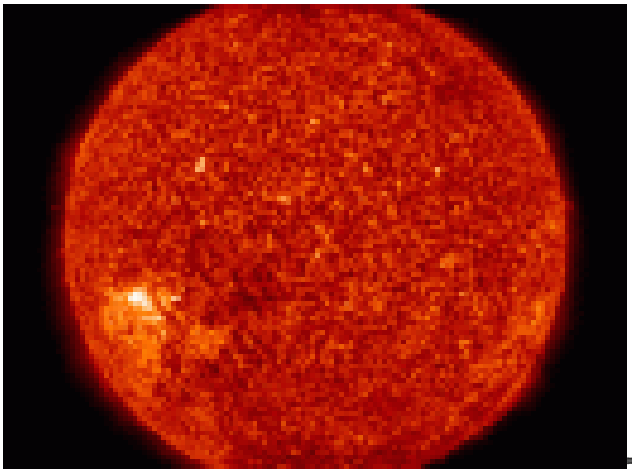
Elmira Radio Club— **https://ve3erc.ca**

Trans-Provincial Net - **http://tpn7055.com/**

Radio Amateurs of Canada— **www.rac.ca**

KW Amateur Radio Club - **www.kwarc.org**

Guelph Amateur Radio Club— **www.garc.ca**



INTERPRETATION OF SOLAR DATA

"A" INDEX ..... 1-6 BEST 7-9 FAIR 11+ BAD - Represents overall geomagnetic condition of the ionosphere over a given 24 hour period.

"K" INDEX ..... 0 or 1 BEST ... 2 OKAY .... 3+ BAD ..... 5 VERY BAD - This is the overall geomagnetic condition of the ionosphere averaged over the planet over the past 3 hours. K index indicates geomagetic storms. Below 10 MHz, K of 5+ increases noise level appreciably, K of 7+ degrades HF significantly.

"SFI" ..... 70 NOT GOOD ... 80 GOOD ... 90 BETTER ...100+ BEST - SFI is the Solar Flux Index and is a measure of total radio emissions from the sun.

- Higher Solar Flux generally suggests better propagation on the 10, 12, 15, 17, & 20 Meter Bands. Solar Flux rarely affects the 30, 40, 60, 80, & 160
- Generally, propagation conditions are best when the A index is 10 or lower, and the K index is 3 or lower.
- SFI Solar Flux Index: When >70 then 20m opens. When > 90 then 15m opens.
- X-Ray : Solar X-Ray emissions will cause shortwave fadeout. Classification from weak to strong X-Ray emissions : A, B, C, M, X
- During a solar X-ray outburst, the lower frequencies are the first to suffer, with subsequent fading up the frequency spectrum over a short period (usually less than a hour).

CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER

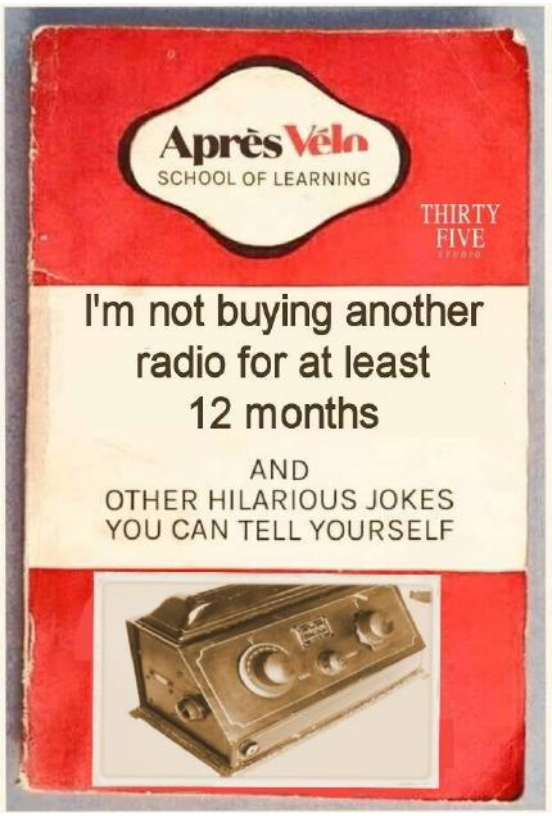
Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?

Perhaps you'd like to share a photo of your shack, a special project you are working on or a special interest!

SEND THEM TO:

Bob bobve3ixx@gmail.com

(519-787-2279)



WEDNESDAY NITE NET CONTROLLERS

DECEMBER 30 - KIRK VA3KXS

JANUARY 6 - REG VE3RVH

JANUARY 13 - FRANK VA3FJM

JANUARY 20 - TOM VE3DXQ

JANUARY 27 - M E E T I N G

FEBRUARY 3 - BILL VA3QB

FEBRUARY 10 - WES VE3ML

FEBRUARY 17 - PAUL VE3PVB

FEBRUARY 24 - M E E T I N G

MARCH 3 - AL VE3DZZ

MARCH 10 - BRIAN VA3DXK

MARCH 17 - BOB VE3IXX

MARCH 24 - M E E T I N G

MARCH 31 - TED VE3TRQ

APRIL 7 - AL VA3TET