

# RAMBLER

OCTOBER 2022



VOL. 65 ISSUE 2

NEWSLETTER OF THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED ([OVMRC.CA](http://OVMRC.CA))

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## WHAT'S INSIDE:

OVMRC EXECUTIVE	2
NETS/EVENTS	3
PRESIDENT'S RAMBLINGS	4
MEETING MINUTES	5
OUR FREQUENCIES	12
APOLLO HAMSHACK	14
DIGITAL AMATEUR RADIO TV	15
NET ACTIVITY	18
EDITOR'S NOTE	20

## MEETING: OCT 19, 7:15 P.M.

### AGENDA

- OPENING 7:15 BARRY (VE3NA)
- GREETINGS-GUESTS/MEMBERS
- PRESIDENT'S REMARKS
- MINUTES REVIEW/APPROVAL
- CHAIRPERSON REPORTS
- PRESENTATION:  
POTA - KIERAN, VE3KS
- MEETING ADJOURNMENT
- RAG CHEW

CHECK-IN TIME 6:45 TO 7:15 P.M.  
MEMBERS AND INVITED GUESTS WILL  
BE SENT AN EMAIL INVITATION  
SEVERAL DAYS BEFORE MEETING DATE  
WITH LOGIN AND PASSWORD. OTHERS  
NOT ON OUR MAILING LIST PLEASE  
CONTACT NORM AT: [VE3LC@RAC.CA](mailto:VE3LC@RAC.CA) FOR  
INVITATION.

## OVMRC AFFILIATIONS





# **OVMRC Executive and Officers 2022- 2023**

## **DIRECTORS**

### **President:**

Barry Allison, VE3NA  
ve3na@rac.ca

### **Vice-President:**

Norm Rashleigh, VE3LC  
ve3lc@rac.ca

### **Treasurer &**

### **Membership Records:**

Nicole Boivin, VE3GIQ  
ve3giq@rac.ca

### **Corporate Secretary:**

Alan Fricker, VE3KAE  
alanfricker@yahoo.ca

## **STANDING**

## **COMMITTEES**

### **Club Projects & Bulk**

**Orders:** Barry Alison,  
VE3NA ve3na@rac.ca

### **Radio Course &**

### **Accredited Examiner:**

Norm Rashleigh, VE3LC  
ve3lc@rac.ca

### **Meeting Reception:**

John McGowan, VA3JYK  
john.mcgowan1314@gmail.com

### **Nets & Radio**

### **Operations:** Hugo

Kneve, VE3KTN  
ve3ktn@rac.ca

### **Rambler Newsletter**

### **Editor and Production:**

Alan Hotte, VA3IAH  
editor@ovmrc.ca

### **OVMRC.CA & Social**

**Media:** Adam Bird,  
VA3IRD web@ovmrc.ca

### **OVMRC Repeater**

**Keeper:** Norm Rashleigh,  
VE3LC ve3lc@rac.ca

### **Special Events:** Roger

Egan, VA3EGY  
va3egy@gmail.com,  
John McGowan, VA3JYK  
john.mcgowan1314@gmail.com

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### **OVMRC Groups.io**

### **Ongoing discussion**

### **Group at:**

**<https://ovmrc.groups.io>**

**[/g/main](#)**; All radio  
amateurs members and  
non-members are  
welcome

### **Ottawa Valley Mobile**

### **Radio Club,**

### **Incorporated PO Box**

**41145 Ottawa, ON**

**K1G 5K9**

### **OVMRC Life Members:**

Ernie Jury, VE3EJJ  
Maurice-André Vigneault,  
VE3VIG

Ralph Cameron, VE3BBM

Doug Carswell, VE3ATY

Doreen Morgan, VE3CGO

### **OVMRC Repeaters:**

- **VE3RAM** Limited  
coverage to Orleans  
and East Ottawa  
443.700 MHz (+) DMR  
CC1 & D-Star Network  
connected to  
Brandmeister

- **VE3TWO** Limited  
coverage to East and  
South Ottawa 147.300  
MHz. +, PL 100.0 Hz.  
Analogue FM and  
C4FM

### **Special Event & Field**

**Day Call Sign **VE3JW****



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## LOCAL WEEKLY NETS (ALL CHECK-INS WELCOME)

- **Rubber Boot Net**, VE3OCE 146.880 MHz (-)136.5 Hz tone weekday mornings at 7:30 AM conducted by Roger, VE3NPO
- **Pot Hole SSB Net**, 3760 kHz, every Sunday morning at 10:00 AM conducted by Ernie, VE3EJJ, or Glenn, VE3XRA.
- **Pot Lid Slow Speed CW Net**, Sunday night, 7:30 PM, 50.090 MHz., horizontal polarization. Join co-controllers Hugo (VE3KTN) and Norm (VE3LC) for accomplished and budding CW operators alike.
- **QCWA Chapter 70 Net**, VE3OCE 146.880 MHz (-) 136.5 Hz tone, Monday evenings at 7:30 PM conducted by John, VE3ZOV
- **Capital City FM Net**, VE2CRA 146.940 MHz -, (100 Hz tone), Monday evenings at 8:00 PM.
- **Champlain Mini Net**, VE3STP 147.060 MHz -, (114.8 Hz tone), held Monday through Saturday at 7:00 PM.
- **Upper Frequency Net**, Simplex 144.250 MHz using USB, Tuesday evenings at 9:00 PM conducted by Glenn, VE3XRA. Following check in on 2 m you can check your radios on 6 m at 50.150 MHz and 70 cm on 432.150 MHz as well using USB. All check ins are welcome.
- **Phoenix Net**, VE3OCE 146.880 MHz (-) 136.5 Hz tone, Tuesday evenings at 7:30 PM conducted by Pete, VE3XEM
- **Almonte ARC's D-Star Net** Tuesday evenings at 8:40 p.m. carried on XLX197 and everything connected to it. Dale VE3XZT presides.
- **OVMRC 2-Metre Net**, Thursday Evenings, 8:00 PM, Club Net on FM will be held through VE3OCE 146.880 MHz (-)136.5 Hz tone conducted by Hugo, VE3KTN.

## INFORMAL AMATEUR RADIO RESTAURANT GATHERINGS

- |  |  |  |  |
|--|--|--|--|
| • <b>QCWA Chapter 70</b><br>Breakfast gathering every Tuesday morning at 7:30 to 10:00 AM, Summerhays Grill, 1972 Baseline Rd., Nepean - Restarted | • <b>Orleans Coffee gathering (on hold)</b><br>every Friday morning at 9:00 AM, McDonalds, 2643 St. Joseph Blvd, Orleans | • <b>QRP Group Dinner meeting</b> ,<br>Second Wednesday every month, 5:00 PM, Newport Restaurant, 322 Churchill Ave N., Ottawa | • <b>Phoenix Net monthly Breakfast gathering (on hold)</b><br>, usually the second Saturday every month at 9:00 AM, Check with Pete<br>ve3xem@rac.ca |
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# President's Ramblings

I was a little worried that the September meeting may have been a disappointment to the membership since we didn't have a guest speaker lined up and there was a lot of administrative business to clear after the summer break. Much to my surprise, the majority of attendees held on to the bitter end. Talk about throwing our new secretary, Alan, ve3kae, into the fire for his first opportunity to record the club meeting topics. It was rapid fire, item after item, for quite a while. They seemingly never ended, but he pulled it off. Thanks Alan! Please check out the final minutes in this issue of the Rambler.

Thanks to Norm for his intro to Ham Shack Hotline and the update on the XLX197 Reflector. Those two brief 11th hour presentations by Norm were much appreciated. Thanks, Norm!

Since the September meeting, some progress has been made with room possibilities at the museum for future "in person" meetings. Stay tuned for more information on this topic which will be updated weekly on the OVMRC Thursday night 2 m net.

Also, there is a guest speaker, prepared to talk about his POTA activities, lined up for the October meeting. Kieran Shepherd, VA3KS, will present on his many exploits, equipment and more.

Rambling content is a little on the thin side this month as I have been busy taking care of some family business but things should be back to normal next month.

Note to OVMRC club members:  
- contact Alan VA3IAH (Rambler editor) editor@ovmrc.ca for some guidance in submitting an article for the Rambler.

That's it for my October ramblings. Everyone is invited to join the OVMRC October Zoom meeting Wednesday October 19. Check in will start at the usual ~ 6:45 PM with a start time as close to 7:15 as possible. Anyone not receiving the check in credentials can do so by sending an email to Norm (Zoom custodian) ve3lc@rac.ca.

The OVMRC meetings are open for all to attend. Club membership is not required (but of course we would like to have you as a member). Guests wishing to attend can submit a request to the Zoom custodian (see above) and joining credentials will be sent to you. I look forward to seeing many club members and guests at the October Zoom meeting.

73,  
Barry, VE3NA



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# Meeting Minutes

**Date / Time:** Wednesday, September, 21 2022 @ 19:15

**Location:** Via ZOOM online meeting

## 1) Call to order:

OVMRC President Barry Allison, VE3NA, called the meeting to order at 19:13. There were 53 official check-ins.

## 2) Welcome and Guest Greetings:

Barry, VE3NA extended greetings to everyone – the first meeting of the year. Barry also extended his thanks and appreciation to outgoing secretary, Ron VE3LBU for his hard work, and welcomed the new secretary, Alan VE3KAE.

Barry welcomed new club member VE2WDY Wafon Darmawan, attending tonight and Roger Bélanger, VA3GBV from the Seaway Valley Amateur Radio Club.

Barry also mentioned Hurricane Fiona, and hoping for the best for those in its path.

## 3) Club Dues Reminder:

Reminder from Nicole, VE3GIQ, that the preference for dues payment is via E-transfer. Otherwise dues payment can be made by cheque, and sending via mail to the club PO Box.

## 4) Meeting Room Update:

Norm, VE3LC mentioned he has contacted people at the museum but there are new staff there who do not know our history and we may have to re-educate them about us. Norm mentioned that the museum is entertaining renting rooms to organizations. However, there is still some reluctance because of ongoing COVID infections. We perhaps could have meetings here, but not on a regular basis. Further consideration and discussion is required.

## 5) Door Prizes:

Barry, VE3NA mentioned that planning is underway for door prizes again this year. Last year prizes were substantial, including two VNA kits, a watt meter, and an Anytone radio package. As usual, previous year winners are excluded from the prize offerings this year.

## 6) Coaxial Cable Sales:

Barry, VE3NA mentioned that he has received some requests for purchase of RG58 coax. It is flexible, good for mobile use, and useful for coils and toroids. Barry anticipates a quote of 10 cents per foot. A show of hands indicated enough club interest, so Barry to proceed with an order. Will update next meeting.



### **7) Congratulations to Maurice-Andre:**

Congratulations were extended to our esteemed member, Maurice-André Vigneault, VE3VIG who celebrated his 90th birthday over the summer.

### **8) Approval of minutes from previous meeting:**

**MOTION:** Moved by Douglas, VE3YDK and seconded by Tim, VE3TXB that the AGM minutes of the meeting held Wednesday, June, 15, 2022 be approved.

**VOTE:** No Objections.

**CARRIED.**

### **9) Projects, Haves, Wants and Announcements:**

#### **Haves:**

1. Barry has a temp control Weller soldering station. A 60- watt unit with 6 tips. Will do surface mount. Harrie VE3HYS, says he will pick it up.

#### **Wants:**

1. Hugo - VE3KTN looking for Anderson power pole shells. Barry says we used to have some in he club kit. Norm VE3LC and Hugo VE3KTN to consult.
2. Bill VA3HWA - looking for service data for Grundig S350DL radio.
3. Richard VA3HBL - wants to swap QST mags for TCA mags.

### **10) Agenda and Meeting**

#### **Content:**

Barry, VE3NA outlined the agenda for the meeting.

#### **Budget:**

Nicole VE3GIQ provided an update on the club financial statement. Nicole mentioned current bank balance is \$25,100. The new budget will be reported in October. Nicole VE3GIQ shared the OVMRC Budget report for FY 2021/2022 that summarized income and expenses for the year.

#### **Budget Items of interest:**

The club did not earn interest on GICs as it does not currently have any GICs. Perhaps invest \$15k in GICs. Further discussion on this and will be reported on later.

Memberships - Nicole noted that we have a larger than expected number of associate members.

Zoom leasing expense - paid out what we expected.

Exam administration - expected. We brought in more revenue than expected.

Bulk buys - \$2600.00

Donations - ARISS, AMSAT, DARF, RAC Foundation, \$1450.00

Year end door prizes \$1133.00

Web hosting fee \$140.93.



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### **Membership update:**

Last count - Of those, 62 of are paid memberships. 5 people are "lifers" and 1 is honorary. Another 10 are dues extensions from last year - granted for the rest of this year. Nicole again mentioned that the preferred payment method is via E-transfer to [ovmrc.e.xfer@gmail.com](mailto:ovmrc.e.xfer@gmail.com). Nicole informed that if members have changed personal information, to inform her via email at [ve3giq@rac.ca](mailto:ve3giq@rac.ca).

### **Name Tags:**

The club is not ordering name tags any more however members can order from the printer directly - SG Printing, Canotek Road. Also, the club has some name tags that were never picked up. Nicole will contact members by email on those.

### **MS Bike Tour August 21-22, 2022:**

Nicole VE3GIQ outlined the activities related to the MS Bike Tour Aug 21-22, 2022. The MS Bike Tour is a fund raising event for MS based on pledges. This was the first event since COVID began in 2020. The event previously ran between Metcalfe and Cornwall - 185 km. This year the run was from Kars to Brockville. There were a total of 5 rest stops plus end points. Members from 3 clubs participated in the event - OVMRC, OARC and the Seaway Valley Amateur Radio Club with a total off fifteen amateur radio operators/volunteers staffing 7 locations.

The antenna used for the event was a full size j-pole on an 18 ft mast. The antenna worked extremely well at 20 watts. Testing before the event indicated three possible repeaters for the event, however, Brockville was the only viable repeater. Thanks to John VE3JYK, Fred VE3LAF and Tim VE3TXB for help with reception testing. Roger Bélanger VA3BGV, Nicole VE3GIQ, and Peter VE3XEM shared net control duties. In addition, Norm VE3LC and Barry VE3NA teamed up on Saturday and Sunday at Rideau River provincial park. Nicole provided various photos of the event including rest stops, etc. Final MS Bike report to follow with lessons learned and items to address.

Some observations - Vehicle and Marshal IDs - get these sooner; there were vehicle signage issues - difficulty in recognizing vehicles; rest stop signage issues, communications issues - Marshals didn't check in with amateurs soon enough. There has been a suggestion to add APRS to vehicles - potential problems with this, not enough amateur volunteers as well as equipment management issues. Possibly another solution - logging and tracking software. More on this to follow.

On the topic of volunteers, Nicole pointed out that there were not enough volunteers to staff two per site, however, the event was short on volunteers of all types.



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Participant numbers were down as well – about 187 total. Likely COVID related and/or vacations. Hopefully bigger event next year – about 400 riders and more radio volunteers.

Barry VE3NA – thanked Nicole for her presentation.

### **Adam VA3IRD - New OVMRC Web Site Status:**

Barry VE3NA introduced Adam VA3IRD as the OVMRC new web site developer. Barry pointed out that both Adam VA3IRD and Alan VE3IAH worked very hard over the summer on renewing the OVMRC web site.

Adam provided comments and update on work since end of last season and throughout the summer. Adam is now working with WordPress to facilitate site content. Much has been done to update content and improving the layout. There is a new hosting provider, which allows us to have more space for content. The Website URL has changed to OVMRC.ca. A reminder to all to update old bookmarks.

The site now works better on tablets and phones – more on that to come. Adam is exploring with Alan the idea of breaking out newsletter content to individual articles similar to a news website. Also want to build new features including an updated photo gallery and YouTube video content.

Any old material will be updated – local repeaters etc. Adam mentioned to be aware that account registration and commenting is disabled for now.

Adam and Alan will look at a more streamlined membership application process on the site. In the interim a fill-able pdf form, and an actual e-form later on. In addition, there is a plan to improve the OVMRC store for merchandise sales.

Overall, the goal is to make the website to be a more hi-traffic area and meeting place. Work will continue over the next few months. As this evolves, input from members is greatly appreciated.

Barry VE3NA, thanked Adam VA3IRD and Alan VA3IAH for the good work they have done.

### **Field Day 2022 Update - Norm VE3LC:**

Norm VE3LC provided an update of the June 2022 ARRL Field Day activities by the club. There were 22 participants from the club who contributed to an aggregate score under various classes. No update from ARRL yet on total score. Last year we had 27 participants. Norm pointed out that individuals have now gained experience with the overall process in doing field day alone. Norm believes we may do better with total scores this year which should be published in the December issue of QST magazine.





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## **XLX197 Multi-Protocol Digital Voice Reflector System - Norm VE3LC:**

Norm provided overview and a slide depicting the features of the new reflector.

This is new and replaces reflector XLX196 - which is now retired and no longer on line. This reflector resides in a data centre in Calgary, and administered by Andrew VE6EN. The protocol is similar to that of XLX196 that it replaces. The old XLX196 did not have an Allstar node.

The new Allstar node 564013 has a direct link to a node on the analogue FM repeater in Almonte. VA3AAR. There is also a simplex node connected to the Allstar node in Calgary on 147.565. If accessing this reflector - can connect via hotspot as it is multi protocol - DSTAR, DMR, or YSF

Maurice André, VE2VIG mentioned you can set up Allstar on your computer if you don't have a hotspot and it works very well.

Norm VE3LC mentioned there may be some audio degradation if crossing vocoders. Neil VE3PUE asked about the simplex node. Norm cautioned about single frequency nodes - the question is - where are you going to put them? Even if the node has low power, you still may be operating with a 5 watt portable, that may cause interference. We need to be careful and there should be coordination.

## **Ham Shack Hotline Update - Norm VE3LC and Daniel VA3GLB:**

Norm provided an overview of the ham shack hotline system which is an IP phone system open to hams who can participate with an IP phone - surplus preferable - Cisco SPA504G for example. (Ref <https://hamshackhotline.com>). Norm noted that there is a phone book listing available and several OVMRC members are now set up.

It was noted that there are some apps available for the computer and the phone system has full features including messaging and conference calls. Daniel VA3GLB - provided his input on the system. He has two numbers - older experimental and current number.

Norm mentioned there are also RF links to various repeaters. You can also dial the Canada Hub at node 517300 and 517302 for example. Norm provided a demonstration.

Barry VA3NA suggested this might be a topic of discussion in the post meeting chat. Norm will stand by.

### **Chair Reports:**

Net Operations: Hugo Kneve VE3KTN:

Hugo VE3KTN provided a net status update. The nets have all started for the season. The latest Nets Summary can be found in the OVMRC Rambler.



To note is the Potlid CW Net is Sunday evenings at 730 PM and is now on 6 meters on 50.090 MHz. This is a good chance to practice CW. The Thursday night OVMRC net has started up with regulars and 80 meter Sunday morning Pothole net is now running. Hugo expressed thanks to Ernie VE3EJJ for heading up the net for another season. His time and effort are greatly appreciated. Hugo mentioned he would put a Net Summary slide up on Groups.io for reference.

Barry VE3NA thanked Hugo VE3KTN for his update.

**Update from Alan VA3IAH - Alan not available at this time.**

**Special Agenda Item:**

**Request for funding - Roger, VA3EGY with support from Harrie VE3HYS:**

In support of a request for funding, Roger VA3EGY, made a presentation - Developing a Vision for the Future of Amateur Radio in Ottawa.

Roger is seeking a donation in the amount of \$2500.00 from the OVMRC, to purchase amateur radio equipment to support amateur radio youth activities (YOTA - Youth on the Air) in Ottawa. This is in anticipation of a YOTA sponsored amateur radio camp at Carleton University, July 16-21, 2023. The goal is to create a space where students and young

professionals can grow in the hobby. Wants Carleton to be a showcase for STEM. Also could be a proof of concept on how to attract and sustain people in the hobby.

VE3TUN has previously provided some funding. Roger has reached out to RAC as well. He has been participating on bi-weekly calls with Youth on the Air run a camp at the VOA museum in Cincinnati, Ohio. Visited with these folks during Hamvention. Roger noted that there are several organizations that they are connected to this - IEEE, RAC, YOTA, YASME, ARDC.

Roger summarized some of the ideas and benefits related to the proposal:

Carleton has 2200 rooms and can provide meals and related classrooms and labs.

- Wants to partner with the Diefenbunker.
- Will require various organizations assistance to make this a reality.
- Wants to build an ARISS/Sat Ground station with the right equipment. Will cost about \$10k.
- Equip for the Carleton Radio Club - about \$20k. - For up to three stations.
- YOTA camp will provide ICOM radios temporarily. But wants to have this fully operational without the YOTA equipment.
- Could make equipment available for club members as well.



- Asking for funding from the two local clubs and asking other organizations to match funding.
- RAC – contributes ongoing support.
- YASMAE \$15k
- ARDC US \$15K
- OARC has approved a grant of \$2500.00. Asking the same funding from the OVMRC.

Roger outlined work completed and ongoing to date with youth in the area, including New Hams Ottawa website with weekly net on VE2CRA on Tuesday evenings, foxhunting events, geo-foxing events (recvd funds for GMRS radios via ARDF Ottawa) supplemented by recently purchased GPS units. All of this is supported by various amateur radio operators who have volunteered their time to this program.

Looking for approval of \$2500.00 for equipment only which is the basis of the ask. Any equipment donated would be appreciated, but really needs the funding. Roger says he is open to discussion for any involvement by the club, and that suggested the transfer of funds might go through RAC. Roger says it is important to get a decision quickly.

Follow up discussion. Harrie VE3HYS reiterated the need for funding and help.

Maurice-André VE3VIG asked if they have approached the Trillium Foundation? Not yet – but would appreciate a connections at Trillium and welcome Maurice-André's VE3VIG counsel on this.

Would prefer antennas set up at the Diefenbunker because of potential technical challenges at Carleton. VE3EMB Michelle Barbeau might be a helpful contact. Maurice-André VE3VIG will look for Trillium contact names. Will report back to Roger. Norm mentioned that a detailed proposal might have to be written for Trillium Foundation.

Roger mentioned there is money available from various organizations as long as it is related to STEM, Youth and amateur radio. Wants this camp run on a continuous basis. Possibly franchised from the USA. Roger mentioned the benefit of social value in having participants from various countries as they can continue to communicate using amateur radio.

Norm VE3LC asked if the decision has been made to fund a camp here with US money. Answer – Yes. Norm VE3LC asked if they were looking for volunteers as well? Answer – yes to some degree. Harrie VE3HYS expects that most of the people at the camp will be Canadian. Applications from Canada will be prioritized. Camp is limited to 30 participants. Age range 15-25. Cost is \$100.00 to come to the camp.

**Status:** Consideration of the funding request to be tabled at the next Executive Committee meeting.



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Barrie VE3NA asked for motion to adjourn the meeting, and discussion can carry on after.

**11) Adjournment:**

MOTION: Moved by Norm VE3LC, to adjourn the business meeting at 21:50.

**12) Next meeting:**

The next monthly meeting of the OVMRC will be held via Zoom Wednesday, October 19, 2022 at 7:15 pm.

**Minutes recorded and prepared by Secretary, Alan Fricker VE3KAE.**

## **OUR FREQUENCIES (BRYAN, VE3QN)**

For all the reasons we engage in amateur radio one thing we all share – sort of the principal ingredient in our stew – are frequencies, or – more precisely – access to them. This brief article will attempt to summarize how all that began, what has kept it going and what we all must look out for as the future unfolds.

Radio, as we know it, began in the late 19th and early 20th century when experimenters like Guglielmo Marconi took what had until then been a laboratory curiosity and began seeing how far these electromagnetic waves could travel and be detected. Critically, they also determined that by turning the waves on and off with a telegraph key they could transmit intelligence over distances without

wires. They employed spark transmitters which, put simply, generated a huge burst of static. Using tuned circuits they could concentrate the burst to a specific frequency – more or less.

By the early twentieth century commercial, government and military interests were all in on the action as were countless “radio experimenters” and it was a nightmarish cacophony. International conferences in 1903 and 1906 began what became the international regulation of radio.

But what to do about the “experimenters”? By 1912 the international wisdom was that the only useful parts of the spectrum were below about 500 kHz. In 1912 the U.S. Congress banned individuals “not engaged in bona fide commercial business” from transmitting on wavelengths longer than 200 metres. Radio amateurs – as we can call them now – were banished to frequencies above 1500 kHz – then considered useless.

Surprise! In 1921 and 1922 radio amateurs began to discover the amazing properties of these “short waves”. A trial organized by the nascent American Radio Relay League demonstrated that communication across oceans was possible from every part of the U.S. to any country in Europe. In 1924 the then U.S. Secretary of Commerce, Herbert Hoover – himself a radio amateur – spearheaded the formal rebirth of



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amateur radio in his country and authorized amateur frequencies at 3.5, 7.0 and 14 MHz – our 80, 40 and 20 metre bands. In 1927, at an International Conference in Washington, a band at 28 MHz – our 10-metre band – was authorized.

Later in 1952, a band at 21 MHz – the 15-metre band – was authorized. And, at the World Administrative Radio Conference of 1979 (WARC-79), three small additions to amateur HF spectrum were authorized, viz., the “WARC bands” at 10.1 MHz (30 metres), at 18.068 MHz (17 metres) and at 24.89 MHz (12 metres).

By the 21st century, radio amateurs – organized through the International Amateur Radio Union (IARU) – recognized that the principal task ahead would be protection of these and other frequencies acquired over the preceding century. Nonetheless, small but significant additions to amateur spectra were realized with the 2200-metre band at 137 kHz (WRC-2007) and the 630-metre band at 472 kHz (WRC-2012) – both historic returns to the spectra banned a century before. Also, at the 2015 Conference amateurs gained a 15 kHz band in the 5 MHz range which for Canadian amateurs supplemented a domestic allocation of five “spot” frequencies made in 2014. While these three new allocations to amateur radio appeared in the Canadian Table of Frequency Allocations, the 630-metre and 60-

metre allocations had to await formal authorization which only came with the re-issue of the RBR-4 document in July of this year. For the 630-metre band the power limitation is 5 watts eirp. Given the type of antenna the average amateur might have space for at 630 metres, a transmitter with an output power of over 150 watts would be necessary to attain 5 watts eirp.

Both the 630-metre and the 60-metre allocations entailed very difficult negotiations at the Conferences; however, Canadian amateurs ultimately fared well once authorized by our regulator. At 630 metres we are spared the requirement U.S. amateurs have to clear their planned operations with the electric-power utilities. At 60 metres Canadian amateurs are allowed 100 watts ERP – an exception to the 15 watt eirp in the international allocation.

As we look to the future, we have to take account of the current thrusts in the management of the radio spectrum. Since there is no new spectrum, new and existing entrants must explore sharing spectrum with existing users. Amateurs have traditionally resisted this seeking to keep our bands to ourselves. This will be more and more difficult to argue in the years ahead. Indeed, for the bands where we are a secondary user we will be entering the debate with few cards in our hands. In the 2023 Conference these issues will come to the fore



with our bands at 1240 MHz, 3 and 10 GHz. We will be seeking to continue to use our secondary allocations there while possibly contending with expanding Radionavigation (for example like GPS) and International Mobile (for example 5G cellular) primary users.

To hope to be successful, we will have to continue to support RAC as a member society of the IARU. And, through the Defence of Amateur Radio Fund (DARF) to fund the travel expenses of a delegate to work within the Canadian delegation to the ITU working to protect our interests.

Finally, it is important that we continue to demonstrate amateur radio as a service and to engage in it in ways which highlight our technical and organizational skills which power the respect we enjoy in the domestic and international forums where our fate is being determined.

Bryan Rawlings, VE3QN  
03 October 2022

## APOLLO HAMSHACK

Dennis AG7IN has built an Apollo era mission control style hamshack console with those iconic sloped control consoles as a cw-only operation constructed in a spare bedroom of his house.

For more photos, and details on how he constructed the console check out Dennis' (AG7IN) QRZ page.



For detailed information and photos, Terry W7AMI identified that ARS Technica has a good collection of stories about Apollo Mission Control on their web site.

**Here are two links of interest:**

- <https://arstechnica.com/science/2019/12/apollo-flight-controller-101-every-console-explained/>
- <https://arstechnica.com/science/2012/10/going-boldly-what-it-was-like-to-be-an-apollo-flight-controller/>



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## A field day test of Digital Amateur Radio Television (Mike, VA3TEC)

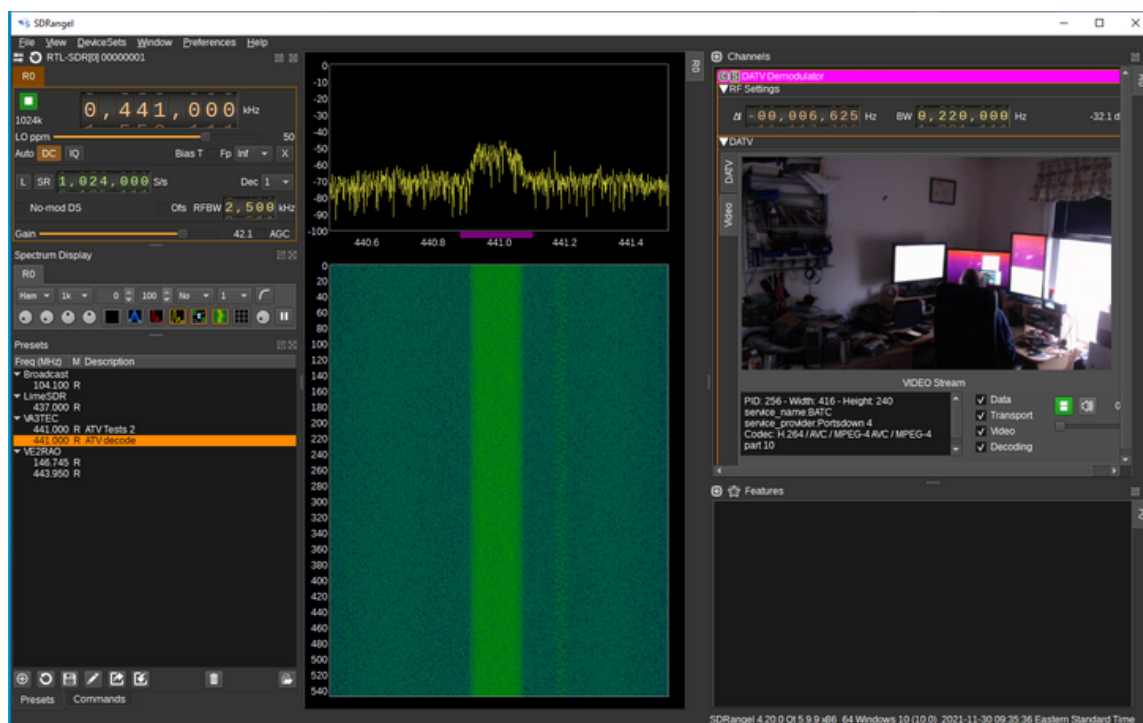
The British Amateur Television Club (BATC) has created an amateur radio television software, known as Portsdown. This software has been designed by Dave Crump G8GKQ to get you “up and running” with a Digital ATV (Amateur radio television) at relatively low cost.

My DATV station consists of RPI software running on a Raspberry Pi 4, a radio transceiver and the PA (Power Amplifier) connected to a combined J pole 2 meter and 70 cm antenna on my roof. The Portsdown software project is a Linux based digital video modulator that takes video from a camera or digital video, encodes it, modulates it, and then sends it out to the SDR radio transmitter. In my setup I am using the LimeSDR-mini as a SDR radio that has a transmitter section built in. This transmitter automatically up converts the DATV modulated signal to the VHF or UHF bands. In my setup I use a carrier frequency of 441 MHz. This is in the amateur television portion of the band plan, 438.000-444.000 MHz.



The Power Amplifier (PA) is from Jim KH6HTV model 70-9B. This is a 70 watt wide bandwidth amplifier that is useful for DATV signals.

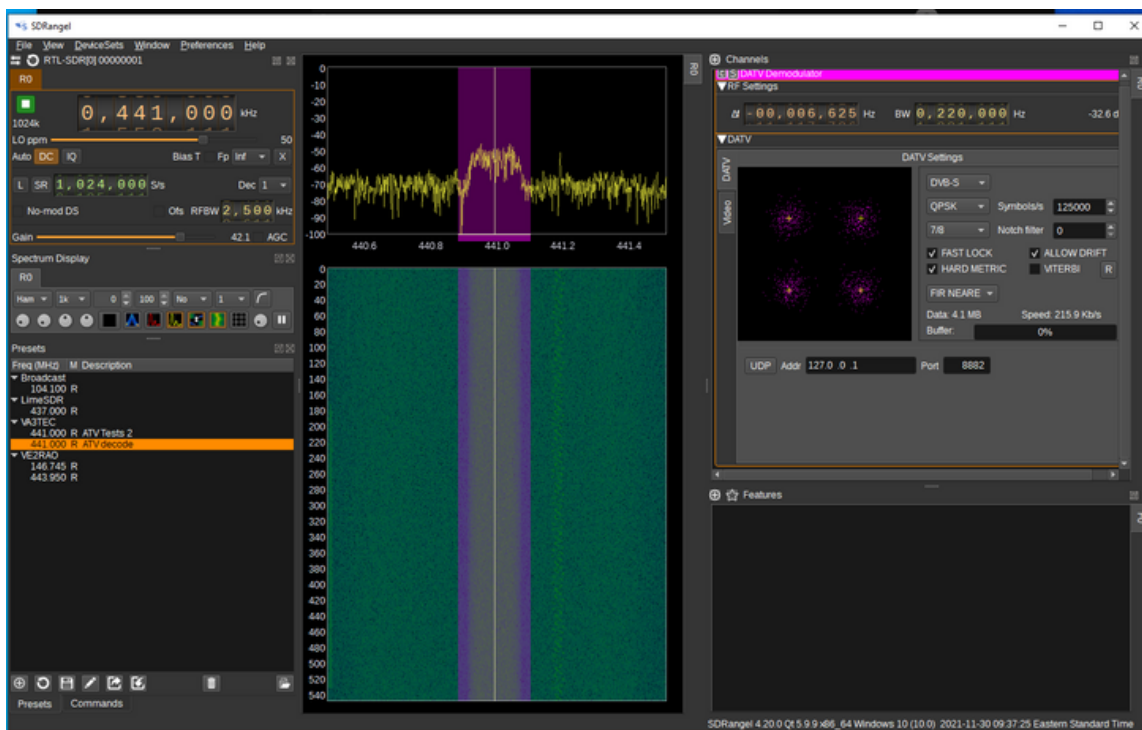
Of interest for those more technical inclined, the modulated video uses MPEG-2 or H264 video compression. DVB-S is typically set to QPSK (Quadrature Phase Shift Keying) with a Symbol rate of 333 Ksymbols/sec. The error correction is typically set to 7/8 FEC. This provides a raw data rate of approximately 440 kbits/sec, with a total signal bandwidth of approximately 500 kHz. All this from an RPI 4 is totally amazing with reasonable picture quality for full motion 30 frames per sec video!



On the receive side, I use a free/open source SDR software package called SDRangel. In my opinion, this is one of the best open source software packages for both SDR receive and transmit. It was written by Ed Griffiths F4EXB and is available from GitHub. They are windows executable files and source code for more experienced Linux users. While challenging to set up and run, it is very rewarding once you succeed. Once working, a typical RTL-SDR Radio can be used as your SDR receiver. The best settings are to use the 2.4 Msps (Megasample per second) data rate. The SDR can go to 3.2 Msps but I found that extra noise would come into the signal on the spectrum and ruin your signal decoding. In an another data link the screen captures, I was able to set to a symbol 125 kps with a raw data rate of ~215 kbps and a received signal strength of -32.6 dBm. This is a link of 14 km between my transmit QTH (VA3TEC) in Orleans, Ont to the receive location in Gatineau Quebec of Luc (VA2RLM).

Next, are images of my roving remote “station” that was setup for testing before field day 2022 near park “la baie” in Gatineau. At this distance and with such a wide bandwidth signal a multi-element Yagi beam antenna is required. As you can see my 440 MHz beam is pointing to my house in Orleans and the received strength is quite good at -15 dBm for a quick demonstration.





## GENERAL REFERENCES:

- [https://wiki.batc.org.uk/Portsdown\\_software](https://wiki.batc.org.uk/Portsdown_software)
- <https://github.com/davecrump/portsdown>
- <http://www.awarc.org/wp-content/uploads/2020/05/Complete-Portsdown-System.pdf>
- <https://limemicro.com/products/boards/limesdr-mini/>
- <https://www.sdrangel.org/>
- <https://kh6htv.com/>



# OVMRC Net Activity, Check-ins for September, 2022.

Prepared by: Hugo Kneve, VE3KTN

OVMRC 2 Metre Net: VE3OCE 146.880-, 136.5 Hz. tone, Thursdays 8 p.m. local.

September 8	September 15	September 22	September 29
VE3KTN - NCS	VE3KTN - NCS	VE3KTN - NCS	VE3KTN - NCS
<b>New &amp; Visitors</b>	<b>New &amp; Visitors</b>	<b>New &amp; Visitors</b>	<b>New &amp; Visitors</b>
<b>General Check-ins</b>	<b>General Check-ins</b>	<b>General Check-ins</b>	<b>General Check-ins</b>
VE3RUU VE3NA VE3LC VE3KAE VA3IAH VA3GFY VA3HBL VA3EO VA3CSG VE3LBU VA2EV VA3PSI VA3WEX VE3RXH VA3TXL VE3OWR	VE3RUU VE3BOW VE3OTW VA3LUI VE3NPO VE3YY VA3EO VE3KAE VA3IAH VE3OKD VA2EV VE3LBU VE3FFK VE3RXH VE3KJQ VE3LC VE3VIG VA2BBW	VE3RUU VE3NA VE3LC VE3KAE VA3IAH VE3VIG VA2BBW VE3NPO VA3GFY VA2XC VE3ENU VE3LBU VA3CQD VA3EO VE3YY VE3KJQ VE3ZZU VE3OTW VE3RXH VA3WEX VE3LAF	VE3RUU VA2OJD VE3LAF VE3NA VE3LC VE3KAE VA3IAH VA3GFY VE3ZZU VA3GLB VE3VIG VE3LBU VA3CQD VA3CSG VA3EO VE3YY VE3ENU VE3CWM/Dave VA2BBW VE3OTW VA3VGR



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## OVMRC Pothole Net: 3760 kHz. LSB Sunday mornings at 10 a.m. local.

<b>September 11</b> <b>SFI:136 A:12</b>	<b>September 18</b> <b>SFI:132 A:5</b>	<b>September 25</b> <b>SFI:147 A:13</b>
VE3EJJ - NCS	VE3XRA - NCS	VE3EJJ - NCS
<b>New &amp; Visitors</b>	<b>New &amp; Visitors</b>	<b>New &amp; Visitors</b>
<b>General Check-ins</b>	<b>General Check-ins</b>	<b>General Check-ins</b>
VE3BAE VE3YY VE3LC VA3EO VA3BGO VE3KTN VE3KAE VA3PSI	VE3EJJ VA3BGO VA3PSI VE3YY VA3EO VE3NPO VE3KTN VE3LC VE3EKN VE3SYZ VE3OWV	VA3BGO VA3PSI VE3XRA VE3LC VE3KTN VA3EO VE3EKN VE3YY VE3SYZ VE3RXN

The “SFI” and “A” values are the Solar Flux Index and Geomagnetic A-Index respectively as reported on the N0NBH Space Weather web site: <https://www.hamqsl.com/solar.html>. Values are taken within 30 minutes prior to net start time.



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### **Editor's Note:**

The Rambler is the official newsletter of the Ottawa Valley Mobile Radio Club Incorporated and is published 10 times a year (monthly, except for July and August). Opinions expressed in the Rambler are those of the authors and not necessarily those of the OVMRC, its officers or its members. Permission is granted to republish the contents in whole or in part, providing the source is acknowledged. Commercial use of the contents is expressly prohibited. Submit articles and notices to: Alan at editor@ovmrc.ca

73, Alan VA3IAH

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