



# Richmond Amateur Radio Club Review of Activities in 2020 and 2021

## TRANSITIONING TO A PERIOD OF UNCERTAINTY

The past two years have been eventful ones for RARC responding to the pandemic. Rather than taking a wait and see approach, the club proactively tackled the ongoing changes of PHOs and other health safety advisories by improvising, adapting and then overcoming challenges in order to carry on its Amateur radio activities. The innovative and unconventional responses to providing solutions for these uncertainties resulted in new approaches and activities that the club can use to operate after the pandemic. The following is a recap of RARC's experiences during this unprecedented two-year journey.



*Field Day on June 2020 at the club station VE7GOG, less than four months into the pandemic, defined the safety protocols for in-person club activities: mandatory masking, proper distancing, only outdoor venues and no public engagement. In the photo is one of the club's longer-term members giving a demonstration on his battery powered, 'home-brewed' grab and go radio kit. Note that the member was also wearing gloves, which were also made available by the club to members at all events, for additional safety.*

## A Normal 2020 Before the Storm

Under the shadow of the impending pandemic, 2020 started off with business as usual planning the annual RARC Basic qualification radio course and preparing for the busy schedule of public engagements in April and May, which normally included the Vancouver Sun Run, Richmond Public Works Open House, CCM Safety and Safe Living Fair, and the club's annual Emergency Communications Equipment Display and Swap Meet.

**Presentation on Emergency Communication to 12<sup>th</sup> Richmond Scout Group** – The change of plans at the beginning of the year was RARC receiving an invitation to give a talk to a local Scout group in February about using radios in emergencies as part of the group's emergency preparedness program. The simplified talk covered the basics of how to operate a (handheld) radio, explained the use of radios in emergency communications, and discussed how radios are a part of emergency preparations. The club has delivered similar presentations to other community groups as part of RARC's outreach program.

**RARC Table at Burnaby Amateur Radio Club Swap Meet** – RARC always supported local Amateur radio club swap meets by purchasing a vendor/display table to promote upcoming RARC events and sell no longer needed club equipment. Unbeknown to all attendees at the time, the Burnaby club event at the end of February was the last public mass gathering for Amateur radio enthusiasts in the Vancouver area until RARC hosted the next swap meet at the end of November 2021, 20 months later.

## Annual Radio Course –

Every February, RARC offered its Basic qualification radio course at Vancity Blundell, thanks to their generosity for allowing the club to use the *Community Stage* as classroom space.

*Having three students from the Feb. 2020 class (in right photo) joining the present RARC board is compelling testimony to the advantages and benefits of in-person classes cultivating bonds between students and instructors over the 5-week, 15-hour course.*



## The Need to Improvise

Friday the 13<sup>th</sup> of March 2020 was a memorable day for RARC. As the pandemic dominated news headlines on the day before the radio course exam, RARC received notice from Vancity Blundell at 2 pm that the boardroom, where the exam was to take place, was closed to the public effective immediately. With the exam less than 20 hours away, improvisation was required to move the exam to Richmond Centre Food Terrace, which was still opened. The students were able to write their exam the next morning at 9 am with one student seated at each table.

Days later, Richmond City Council declared a state of emergency and the mall, where the exam was written only days ago, along with other public venues were under lockdown. That meant no Steveston Community Centre for meetings, no Lansdowne Centre food court for coffee get-togethers, and social distancing limited only two people at a time inside the radio station. This was only the beginning for the need to improvise. The RARC board immediately reviewed all upcoming club activities and events and made the necessary decision to transition all operations to go either on the air (using Amateur radio) or on-line (using video conferencing tools).

**Unsuccessful Attempts to Migrate Activities On the Air** – It was quickly learned that simply switching monthly club meetings over to radio net operations using the club repeater was not as well received as conducting the Tuesday weekly nets. Interestingly, the motivation and practices behind using radios are not the same as operating remotely. Activities eventually moved online instead using tools like Skype and Zoom, but the cultural shift from in-person to online meetings was more accepted by some club members than others.

**Introducing the Saturday Morning Coffee Net** – Replacing the Saturday morning coffee get-together with an informal radio net using the RARC repeater was more successful. The weekly 90-minute ‘coffee net’ from 10:30 am to noon was conducted as a radio talk show and attracted check-ins from outside the club. The on-the-air event was initiated on the first Saturday following the lockdown in March 2020 and lasted until August 2021.

**Moving Meetings Online Using Zoom** – With public venues like the Steveston Community Centre shut down indefinitely, RARC found new ways to carry on club meetings. By May 2020, RARC operations moved online with minimal disruption except for some members having challenges adapting to the technology and new practices of remote interaction. Member meetings taking place on Zoom became regular occurrences.

**Celebrating Canada Day Online** – Steveston Salmon Festival was one of the first community groups to cancel its event and had celebrations carried out virtually as *Canada Day at Home*. RARC usually supported the event by providing radio communications for the parade. Instead, RARC shared a compilation of photos from past Canada Day parades dating back nearly ten years on a club Webpage (courtesy of the club’s photographer):

[http://www.richmondarc.ca/steveston\\_canada\\_day\\_parade.html](http://www.richmondarc.ca/steveston_canada_day_parade.html)

**Modifying Bylaws to Allow Online Voting** – To fully enable online operations, the RARC Board modified the bylaws so that members can also vote online at meetings. Key addition to the bylaws was to allow online voting if members are unable to physically attend the meeting or conditions prevented an in-person meeting to take place. The resolution was unanimously approved at the online AGM in November 2020.<sup>1</sup>

<sup>1</sup> In April 2020, Government of BC temporarily removed legislative barriers for registered organizations to conduct meetings electronically.



## First Field Day Under COVID-19

Field Day 2020 was able to take place outside the club station, thanks to the kind permission of GOG Cannery. The limited open space on the Parks Canada property enabled an outdoor setup so participating members can socially distance themselves. The event was a private, members only, function under strict safety guidelines monitored by the club's vigilant safety officer. PPEs were made available and mandatory for everyone present. Two qualifications exams were also written that day using the available space at the site – another Field Day first for the club. RARC was one of very few clubs that was able to conduct an in-person Field Day on that year because public parks used by other groups were shut down.



**First Online Radio Course** – The benefits of an online course are not only having to depend on the venue's availability to determine the event date but also having the size of enrolment not limited by the size of the classroom. As the pandemic raged towards a second wave without any vaccine in sight and with no other local Amateur radio courses on the calendar, RARC planned its first online Basic qualification radio course for October 2020. The process for successfully delivering the online course became a template for courses in 2021.



*Delivery of training on the Internet is not a new practice for some RARC instructors. Offering the courses online also attracted students from across the province and the rest of the country from as far away as Yellowknife, NWT and Kingston, ON*



*Written exams took place at the open area of a local mall. Students started at 9 am when there was hardly anyone present and were done before the stores opened. Exams for out-of-town students were coordinated with local examiners (Photo shows why the venue is most ideal for writing exams.)*

## Adapting to a Changing Normal

The need to adapt to online operations was no longer an option but a necessity for RARC by the end of 2020. Even after the announcement of a vaccine, the following year remained uncertain. With the onset of a second wave of infection, it was evident that public events and mass gatherings for 2021 were unlikely. Ongoing changes to PHOs and responses to new variants created a need for RARC to plan activities according to health safety advisories of the day, incorporating a go or no-go decision into each step of the planning process.

**New Concerns for Second Year of Pandemic** – Ongoing restrictions for mass gatherings prevented events like swap meets, which provided an alternate income stream for the club. There were also needs for members to exercise their radio operation skills at public events like the Vancouver Sun Run and the Steveston Salmon Festival Canada Day Parade. By the end of 2021, new members that have joined the club during the pandemic made up nearly one-third the RARC membership, with most of them not having yet met other club members in person.

**Qualification Courses Throughout the Year** – Building on the success of the October 2020 online Basic course, additional online courses were offered to carry the club through 2021. Three Basic courses were delivered in February, May and October with the first online Advanced qualification course offered in August, largely due to the initiative of the club’s enthusiastic lead instructor. Income from course enrolment fees made up for absent revenues from the 2020 swap meet and equipment donations.

**COVID-Proofing RARC Activities** – COVID-resilient activities were created to continue engaging club members and the Amateur radio community. This meant that events could go ahead independent of PHOs and health safety restrictions. Tech Topics Thursday, an online discussion session, is now part of the club’s weekly schedule of on-the-air activities along with the Tuesday evening radio net. On the final Sunday of every month is Simplex Sunday where individual participants travel to different parts of the city to check in with VE7GOG on designated simplex frequencies to learn about simplex propagation and radio operations.



*Simplex Sunday is the perfect event to get outdoors, practice radio operations, learn about UHF/VHF propagation and not worry about social distancing. Equipment could be a simple handheld radio or setup that is a bit more complex like a small amplifier with battery cell as power supply (above photo of equipment on Dyke Rd. across Shady Is.).*

*Similar mobile/portable setup with more powerful radio and battery was used (left photo with Yaesu FT-857) for the RARC ‘coffee net’ from Caribou Park in Burnaby when RARC members made a visit to the Burnaby club’s Saturday morning get together in July 2021 as the pandemic situation was improving and restrictions were starting to relax.*

**Making Use of the Club Station** – The area outside the club station at GOG Cannery was used, when suitable, to get members together for special Amateur radio events and club meetings, especially when the weather was more favourable to sit outside. Whenever more than several members were present, a designated safety officer would be present to make sure that members are not neglecting safety practices as everyone is always excited to meet other fellow members at such outings.

*The photo shows a mix of recently joined and long-term members meeting in person for the first time on World Amateur Radio Day in April 2021. Such face to face opportunities enabled members to show and tell their new acquisitions (toys) and catch up on one another’s projects, a relationship building attribute that is difficult to substituted through online interaction.*

*(Photo courtesy of Carole Eng, VA7QCE)*





# Equipment Maintenance and Upgrades

RARC has always taken advantage of the summer weather to perform maintenance on its station and equipment. For the last two years, such activities were opportune for getting members together outdoors when regular indoor gatherings remained limited. Planning maintenance work parties not only allowed members to become more familiar with the club's assets but also enabled new members to meet other club members in a safe, outdoor environment.

**Annual Station Clean-Up at VE7GOG** – The station exterior and VHF/UHF antennas above the entrance received a good cleaning in July 2020. During the work party, members also gave the GOG Cannery billboard next to the station a scrubbing to remove the moss buildup and seagull droppings. A new coat of weather treatment was applied to the entrance deck and the timer for the lighting above the door was adjusted.

**80-Metre Dipole Replacement** – The replacement wire antenna for HF operations was finally installed in June 2021 after the original one was taken down the previous year due to serious corrosion throughout the cable. With the antenna's feedline at the top of the antenna tower and anchor points on a telephone pole and a smaller tower at opposite ends of the lot, the installation required several members to complete the task.

**Communications Trailer Maintenance** – New members visited Richmond Public Works yard in August 2021 to check out the RARC trailer that was parked alongside similar trailers belonging to the city's Emergency Programs. A couple weeks later, the trailer was towed to a member's home for maintenance and cleaning that included replacing the damaged roof vent, restoring air pressure on the tires and inspecting the electrical wiring for radio operations. Afterwards, the trailer and antenna apparatus on the roof received a thorough cleaning. Minor deficiencies and follow-up service requirements were noted before the trailer was returned to storage.



*Members took advantage of a sunny break to re-install the 80-metre dipole. Meeting the necessary safety requirements limited opportunities to go on the station roof during the summer of 2021: no rain, no wind, dry roof surface and an assistant alongside with a spotter on the ground. And the weather was also either too rainy or too hot. The work was completed one week before Field Day, and just days before the heat dome.*

*(Photo by Sung Sik Jang, VE7LIO)*



*The club trailer was towed to a member's home where club members gave the vehicle and equipment stored on the roof a good scrubbing after maintenance work was completed. All (newer) members in the photo worked on the trailer for the first time, giving them hands-on familiarization with one of RARC's important communications assets.*

**Radio Grab and Go Kit Upgrades** – Diagnosis of the RARC grab and go kit determined that the 12-volt battery cell (installed in 2016 when the go-kit was assembled) needed replacement and the ICOM ID-880H digital-capable transceiver (originally acquired in 2011 for the communications trailer) revealed deficiencies, likely resulting from extended use in sending SSTV images during the 2019 RARC 50<sup>th</sup> anniversary events for Apollo 11 and 12. A more efficient 12-volt LiFePO<sub>4</sub> battery and updated ICOM ID-4100A radio (successor to the ID-880H) were purchased in 2021, using revenues generated from the online radio courses, as replacement upgrades.

**Battery Upgrades for Solar Panel** – Inspection was carried out on the radio station's solar panel, which was installed in 2019 as proof-of-concept to provide temporary backup power for radio operations. The battery storing the generated solar power is a hand-me-down unit already in its half-life when it was donated by E-Comm in Vancouver and may need to be replaced.

# Supporting GOG Cannery Society

Efforts by RARC members to support GOG Cannery continued throughout the pandemic in many ways from using the radio to promote awareness of the Parks Canada site to keeping the property cleaned.

*During a work party in July 2020, members also gave the GOG Cannery billboard next to the station (right photo) and sidings of the admin building along the pathway to the station entrance a good cleaning. Club members visiting the station during other times also made an effort to pick up litter in the area, especially empty beverage containers left behind by the public over the weekend. Such cleanup activities enabled members to do something together that also benefitted GOG Cannery and where the need to maintain social distancing was not an issue.*



**Publicizing Gulf of Georgia Cannery Using VE7GOG** – RARC uses its station sign, VE7GOG, to contact Amateur radio stations locally, across Canada and around the world during activities from local radio nets to Field Day to international DX contests. The station’s QSO card (sent to radio operators to confirm a radio contact) features the Cannery museum building to promote awareness of the National Historic Site.

**Promoting GOG Cannery on Twitter** – Messages ‘tweeted’ by RARC involving VE7GOG activities included the GOG Cannery Twitter account ‘@gogcannery’ to promote the Parks Canada site as well as the location of the RARC station. The social media account often cross-promoted GOG Cannery events to RARC ‘followers.’

**Encouraging GOG Society Membership** – RARC decided a few years ago to encourage its club members to also become members of GOG Cannery Society by offering a 50% club subsidy for Society memberships. All RARC board members are now required to become GOG Cannery members. Getting more RARC members involved with GOG Cannery Society is a way to strengthen the relationship between the two groups.



*The summer 2020 hose-down at VE7GOG involved members also cleaning the GOG Cannery billboard and wall panels of the admin building. One wants to be socially distanced when working someone holding a pressure hose. (above photo)*

*A club member inspects the ISS model used as tree topper for the RARC Amateur radio themed entry in the 2021 Steveston Festival of Trees. The ARISS call sign on the ISS, N1ASS, is barely visible. (left photo)*



**Participating in GOG Cannery Events** – Club members actively supported events at GOG Cannery by attending the Society’s AGM and participating in the Steveston Festival of Trees with Amateur radio themed decorations. Members are looking forward to attending the next Society members potluck dinner, which was last held on September 2019. We hope to see participants preparing some of the delicious recipes from the recently published, *“From the Sea and Shore – Steveston’s Favourite Japanese Canadian Recipes”* at the next Society potluck dinner. The well-presented, locally published cookbook is available at the Cannery gift shop.

## Reaching Out to the Community in Different Ways

RARC explored alternative ways to reach out to the community after events were canceled and public relations activities were limited. Some of these engagements were extraordinary in their own ways and provided RARC unique opportunities to connect with the community and generate public awareness.

**RARC Radio Exhibited at Richmond Museum** – RARC was invited to provide a radio (Yaesu FT990) for public display at the Richmond Museum’s ‘City at Work’ exhibit in 2019, which featured the unseen services that benefitted Richmond citizens. The RARC radio was displayed in the emergency preparedness section representing one of many local volunteer groups that are involved in providing such services. The exhibit was extended another year until 2021 allowing a longer, though limited, time for public awareness of RARC and the services the club provides to the local community.

**Voting for Steveston as Best Neighbourhood** – During the summer of 2020, CBC Vancouver radio ran a contest to determine the best neighbourhood in the Greater Vancouver area. As RARC’s relationship with the local community is mostly Steveston-centric, the club got involved in the many rounds of voting and shadowed GOG Cannery in promoting the Steveston community to help outvote more than the 190 communities and earned Steveston the title of ‘Best Neighbourhood’ in Greater Vancouver.

**Amateur Radio Themed Christmas Tree** – Another way to promote awareness of RARC and reach out to the public is by participating in the GOG Cannery’s annual Steveston Festival of Trees. The event is a great opportunity to showcase RARC to the public as an active part of the local community with its Amateur radio themed tree displayed alongside those of other community groups. RARC first participated in GOG Cannery event in 2020 when the tree received honorary mention for the accompanying online descriptions about its decorations. Background information about the Amateur radio ornaments is posted on the RARC Webpage at: <http://www.richmondarc.ca/GOGfestrees2021.html>



*CBC Vancouver made the ‘winner’ signs available to the community after the contest. (left photo) The signs in the photo, taken outside the club station, summed up the interrelationship between RARC, GOG Cannery and Steveston.*

*The Yaesu FT-990 transceiver displayed at the Richmond Museum exhibit ‘(Hidden) City at Work’ in the emergency preparedness section from 2019 to 2021 was aptly chosen because the radio was actually used in many RARC emergency communication exercises. The radio now serves as a backup after being replaced by the more technically current ICOM IC-7300, acquired with proceeds from the 2017 RARC swap meet.*

# Overcoming the Pandemic and Planning Beyond

Overall, 2020 was a year of improvisation seeking alternatives and solutions to keep the club running. During 2021, we adapted new ways to get things accomplished by accommodating the new challenges and health restrictions involved. Towards the end of 2021, we started overcoming the challenges of what has become more a changing normal rather than a new normal. RARC will need to adjust to an operating culture of including alternative plans, where they are options rather than plan B's, so there can be flexibility with last minute changes. RARC is now positioned to operate either in a hybrid format or entirely online and have validated such capabilities through its activities over the past two years.

**Summer 2021 Brainstorming Session** – Last August, the board and long-time members got together in person for an afternoon of discussions on priorities and planning for the future of RARC. Key issues addressed included upgrades to the radio equipment (communications trailer, radio station and VHF/UHF repeater) to keep pace with advancing technology, accommodating the changing demographics of the club membership, and strengthening relationships with City of Richmond and GOG Cannery where key RARC assets are located.

**Learning Program Roll Out** – Additional courses and training sessions in 2021 prompted creation of a 'Learning Program' for RARC to coordinate learning initiatives offered by the club. Objectives of the program are to generate interest in becoming involved with Amateur radio and enabling club members and radio operators from other radio groups to increase or improve their knowledge. New courses planned for 2022 will focus on applying Amateur radio skills in emergency preparedness and communications. More information about the program at: <http://www.richmondarc.ca/rarclub/learn140.html>

**Hybrid Meeting for 2021 AGM** – With relaxing health restrictions and the Steveston Community Centre re-opening, RARC booked a room for its 2021 AGM in November after a 20-month hiatus. As some of the club members were still not comfortable enough to attend an in-person event, let alone one that's indoors, the meeting was also telecasted on Zoom from the meeting room to members attending online. The meeting was also a technological proof of concept for future hybrid meetings.

**2021 RARC Swap Meet** – Planning the first swap meet in the Vancouver area in 20 months (on Nov. 27) was filled with uncertainties. Ten days before the event, severe flooding in the Fraser Valley provoked a state of emergency threatening the event's cancellation. But thanks to the diligence of club members and steadfast support from RARC's long-time sponsors, Radioworld Central and ICOM Canada, the event was at least a limited success due to lower than expected attendance. Recap and information about the event are posted at: <http://www.richmondarc.ca/swapmeet2021.html>



*Plans for the 2021 swap meet was to come straight out of the playbook from the three previous RARC events, but the event was nearly derailed by Murphy's own playbook:*

- There were groups that opposed the vaccination passport
- City construction was further delayed, impeding access to the event venue
- Severe flooding in the Fraser Valley created a state of emergency resulting in travel restrictions from the area
- Amateur radio groups in the Fraser Valley that would have attended the event were responding to the disaster
- Fuel rationing was in effect
- And then, the door access into the venue was not working, delaying the event schedule by one hour

*Photo shows two former club members at 2021 swap meet behind vendors table. Remove the masks in the photo and the shot could have been from any past event.*

**Year End Christmas Lunch** – Members were able to sit together at a Steveston area restaurant in early December to celebrate the year's accomplishments. Even though some members felt uncomfortable attending the in-person event, it was good to see a display of camaraderie that has been absent for nearly two years. The event was the first experience of starting to leave the pandemic behind us. But that was all reversed by *omicron*.



**Refining RARC's Role in Emergency Communications** – Many changes that transpired over the past two years may have impacted RARC's involvement in emergency communications. There have been (renewed) discussions about coordinating Lower Mainland emergency radio communications. Older RARC members who have volunteered with the city have retired and moved away and newer members do not have any knowledge of how to become involved. RARC currently has members active with VECTOR and REPARS so the present goal is to prepare club members to support such groups. The RARC Emergency Communication Program is outlined at: <http://www.richmondarc.ca/ecp147.html>



There are plans to establish VE7GOG as a relay station between the Lower Mainland and Vancouver Island for emergency communications. The RARC station at Steveston is the midpoint of Abbotsford and Nanaimo as the crow flies. Initial requirements are upgrades to the antenna system.

*RARC Amateur station VE7GOG framed by GOG Cannery historic buildings in the background looking south-southwest towards Victoria. Nanaimo is to the east. (left photo) The location of VE7GOG by the Gulf of Georgia is suitable as a relay station to stations on Vancouver Is. and Gulf Islands.*

## Outlook for 2022

It is interesting to note that the WHO assigned *Omicron* as name for the new variant one day before the RARC swap meet. One day afterwards, two cases of the new variant were reported in Ontario. The onset of a fourth wave driven by the new variant then brought a return to restrictions implemented almost a year ago. Under present conditions, the swap meet and Christmas lunch held only several weeks ago could not be carried out today. Such is the ongoing volatility going into 2022 but RARC is better prepared for another year of uncertainty.

Board members were able to select events and dates for the 2022 calendar at the Dec. 2021 board meeting – something that has never been done before by the club. Drawing from learned experience over the past two years, RARC has positioned its operations with pandemic-resilient activities so the club will be able to carry on with the events on its calendar in one form or another.

The status quo for RARC going into the third year of the pandemic is to continue operating online while assessing options for hybrid and in-person activities whenever the opportunity becomes safe and favourable. The club will build on its recently rolled out Learning Program, which will be structured around its scheduled radio qualification courses with additional classes on emergency communication skills and related training.

Also planned are necessary equipment upgrades to the communications trailer and catch-up maintenance on the radio station exterior that could not be completed in 2021. Attention will be given to promote activities that involve individual participation like Simplex Sunday, online learning sessions like Tec Talks Thursday, and special 'expeditions' to get members to practice radio operations by going to interesting locations outside the city.

RARC will continue planning its events and activities in accordance with PHOs and safety advisories of the day while addressing the concerns and respecting the opinions of its members. The vaccine has brought about the end of the beginning for this pandemic, but the beginning of the end is still not yet in sight and RARC has adapted to this changing normal.

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**About Richmond Amateur Radio Club** – RARC is a registered BC Society to promote the interests of Amateur radio, assist in the provision of communication support in the event of an emergency, and provide radio communication services for public events as requested. RARC supports Emergency Management BC by its members volunteering with local municipal emergency preparedness organizations, has an agreement with the Gulf of Georgia Cannery Society, and is affiliated with Radio Amateurs of Canada. RARC programs have been partially funded by grants from City of Richmond and Province of BC, private donations, and in-kind contributions from the local business community.

For more information about RARC, visit [www.rarclub.ca](http://www.rarclub.ca) or e-mail [info@richmondarc.ca](mailto:info@richmondarc.ca).

Content compiled by Urey Chan, VE7URE, January 2022  
Uncredited photos by Urey Chan, VE7URE