

The

September 2023

NARA Newsletter



President's Message – Randy VE7FAA

It's been a busy summer for NARA, from Field Day in late June to the recent and surprisingly popular NVIS testing on the last Saturday of August that replaced doing communications for the cancelled VELOS bike race. Thanks to all who organized and participated in all these various events.

Soon enough our hot and dry summer will give way to much-needed rain and cooler temperatures. With that we also enter a new phase for the club.

But don't think that migrating indoors will mean NARA will be any less active over the fall and winter months. There is much club business to attend to — elections, settling into the new NARA clubhouse site, tech talks, putting on Basic classes, work bees and more. Watch for information here in the newsletter and sign up for club emails to stay informed.

While it would be nice if the club could run itself, and to an extent it does, it also requires work, organizing, and coordination. Thanks also go to all those who have assisted in the heavy lifting that has allowed NARA as an organization to be so successfully active in these past few months.

September is a moment of renewal and transition as we shift into fall and all that brings, whether in school or the garden. And NARA is no exception.

There will still be a lot going on in your club in the coming months so please join us.

Ham Happenings - September 17

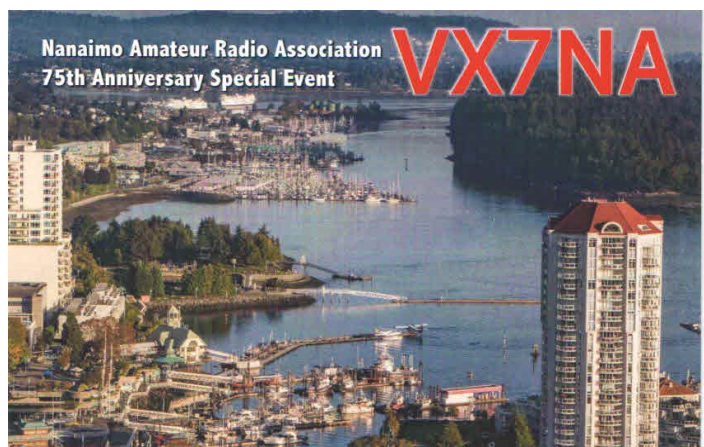
One of the major events on Vancouver Island for radio amateurs is NARA's Ham Happenings radio swap meet, which takes place on Sunday, Sept. 17, at the Cedar Community Hall, 2388 Cedar Road, Nanaimo. General admission is \$5 and doors open to buyers at 10 am. Food will be available and there will also be prizes. If you want to be a vendor there is just about enough time, please contact ASAP tables@hamhappenings.ca.



The Cedar Hall hosts Ham Happenings on September 17

VX7NA – NARA's Special Call Sign

The NARA 2023 75th anniversary QSL cards for VX7NA have been printed and so have the 1,500 labels to go on the back of the cards. The next step is to apply the labels to the QSL cards, sort them, and send them off to the Radio Amateurs of Canada (RAC) QSL bureau. If you are a NARA member and want to collect your VX7NA QSL card at the September club general meeting, then please ASAP email David VA7DXX at va7dxx@gmail.com and your card will not be sent to via the bureau and will be available for pickup.



NARA's website is:

<http://www.ve7na.ca/>

NARA's NVIS Tests

NARA's club station VE7NA was on the air on Saturday, Aug. 26, from VA7DXX's cabin near Ladysmith for NVIS tests on the 80m band. This impromptu experiment replaced doing radio communications for the VELOS bike race on the slopes of Mount Benson that had to be cancelled due to fire risk.

David VA7DXX and Paul VE7XQL operated VE7NA and were later joined by Devan VE7LSE. NARA was expecting a number of stations to participate from around the province where the event had been promoted. As it turned out, VE7NA had about 110 contacts from VE7 stations and from the US. It was certainly heartening to see so much participation in these practically based NVIS propagation tests. A full report will be published in the October NARA newsletter once the results are fully analyzed. There are discussions on now making this an annual event.

How is DX – David VA7DXX

September starts to see more DXpeditions taking to the airwaves again. These include East Kiribati (T32AZ), Cape Verde Islands (D44TWO), Dodecanese (SV5), Belize (V31XT), Jamaica (6Y5DH), Palau (T8), Greenland (OX0J), Guam (KH2), Lord Howe Island (VK9LAA) and Uganda (5X3K).

On Aug. 12 I attended the Pacific Northwest DX Convention in Vancouver. Over a hundred people had pre-registered to attend this DX convention, which is sponsored in rotation by a number of major DX clubs in the Pacific North West region. The convention has been held every summer – apart from covid – since 1955 and this year's organizer was the ORCA DX & Contest Club. It was held at the Inn on the Quay in New Westminster.

On the Saturday there were six main presentations, with the most interesting for me being the one given by Bill KO7SS about this year's Bouvet Island DXpedition. Bill, who is an ER/urgent care physician, was one of two doctors on the Bouvet team. The presentation was indeed interesting, and as previously reported the team did not succeed in all of its amateur radio plans because of the difficulty in getting their equipment onto the island. However, in terms of safety – which is of paramount importance – Bill noted that while the team invested in thousands of dollars of medical supplies, none of it was used or needed. That really is a success.



Bill KO7SS one of two doctors on the 3Y0J Bouvet Island team. He was the doctor stationed on the island during the DXpedition. Here he talking about the Bouvet DXpedition at the Pacific NW DX Convention in Vancouver

NIARS 2023 Campout & Work Bee By Devan VE7LSE & Katherine VA7HN

Several dozen hams from around Vancouver Island had an adventurous trip to the North Island over Aug. 17-21. Folks from the Salt Spring, Victoria, Cowichan, Nanaimo, Courtenay, and North Island radio clubs attended.

Most campers booked spots together and it was named "Ham Hollow." The highlight, the highly requested pizza by Steve VE7CBH from CVARS, was awesome. Three days of rest and play were scheduled, which was a good thing because the work at the Shelley and Woss repeater sites took longer than expected.

Woss got solar panels and power upgrades. Three 70-watt older panels were removed from the roof and replaced with one 220-watt bifacial panel. Two flexible 175-watt panels were mounted to the side of the comshell structure. There is now a total of 570 watts!

Also installed at Woss was an APRS digipeater on an exterior antenna mounted in a tree. This is equipped with a separate low-voltage cutout to give the primary power to the ITS Woss repeater when voltage drops in the fall and winter.

Last year at Woss we were plagued with intermod. This year many attempted remedies were tried, including tinfoil, ferrite, and moving cables around. All would work temporarily but we were not satisfied. After three trips to the site, it was decided that the only fix for now would

be to use the newly installed antenna on the tree for the voice repeater. We then put the 5-watt APRS digipeater on the comshell antenna.



The Woss Repeater site

After three trips to the Woss site, we were happy enough! Thankfully Gord VE7UY was able to assist via email, and Kevin VE7KGV and the team brainstormed ways to fix it. General maintenance and installation of a power system data logger were also done at Woss. This was Stuart VE7HDR's main project.

It took two days to replace the roof at the Shelley Mountain repeater site. Roofing materials were donated by Gary McQuillan, a friend of George VE7KJA in Port McNeill. Other building materials were donated by Ivan VE7IVN on Malcolm Island. A big thank you to them! When the old roof was stripped off only one small hole of rot was found. It was re-sheeted with newly treated plywood and the new roofing was installed. It's looking great now and should last a while.



Work at the Shelly Mountain site

The old panels taken down at the Woss site were installed in place of the oldest panel array at the Shelley site, which was producing only 12.8 volts. Road and tree maintenance was also done to keep branches away from the antennas and to keep the road passable. General maintenance, a new solar charge controller, and installation of a power system data logger were also done.

A group also went to a couple of nearby parks to do POTA (Parks on The Air). Lanaya VE7NAY activated her first park! On Sunday morning Earl VA7EWG hid the fox for a fox hunt. It was a challenge! Jason VA7OCC found the fox first and it was also his first hunt. Good job Jason!

Before leaving Cluxuwe, Kevin VE7KGV and Mark VE7RMJ made a quick trip back to the Shelley site to install the new MPPT charge controller. On the way home a visit to the Newcastle Ridge repeater site was scheduled. On the way Jason VA7OCC came across a broken-down vehicle on the highway and was able to use ham radio to arrange for a tow truck as there is no cell phone service in that area. Paul VE7XQL in Nanaimo answered Jason's call on the ITS and was able to phone BCAA to get a tow truck dispatched. This shows how versatile and useful the Island Trunk System is and why we do what we do!

Out of five trucks that started up the logging roads to the Newcastle Ridge site, only two made it to the top. The first truck, Jason VA7OCC's, had transmission problems around 8 km up. Mark VE7RMJ acted as trailer shuttle and helped get Jason's trailer back to Campbell River, after already taking his trailer that far, as Jason had to make a direct run into Campbell River for repairs.

Then Devan VE7LSE got two flat tires 13 km up the road. Thankfully Kevin VE7KGV and Lanaya VE7NAY helped put on the spare tire and we limped down the mountain at 9 psi to where they had a patch kit at the base of the mountain. We now have better tires and will get a patch kit of our own soon.

Paul VE7PDQ, his XYL Jenny, and Steve VE7BHO made it to the Newcastle site where they watered the batteries and replaced the old battery caps with water-saving caps, so the annual maintenance was at least done.

It was a wonderful few days full of camaraderie and adventure, and we are already looking forward to the third week in August next year. We have been talking about staying at Anutz Lake as well as Cluxewe Resort since Anutz Lake is nearer to Woss and there is no charge for camping.



Camping at the Cluxewe Resort near Port McNeil

If you want to join in next year, please contact Devan VE7LSE at ve7lse@gmail.com.

QSL Matters Receiving QSL cards

Confirming radio contacts is a long-standing tradition in amateur radio that dates to the start of the Amateur Radio Service. Most HF operators and DXers typically exchange QSL cards to confirm special contacts. While you might not have any QSL cards yourself, remember that stations that you contact might send you their QSL card. The most cost-effective way of sending QSL cards around the world, or indeed in Canada, is to use the QSL bureau set up by the Radio Amateurs of Canada, Canada's national amateur radio organization.

You can of course send your QSL cards direct to the station that you have contacted but this is costly, and by tradition you should include a return envelope and a few dollars to cover the return postage. QSLing around the world typically uses US dollars as a currency, so a good amount to send would be about \$4 (US). If you are sending money to a DXpedition station it's always a good idea to send a few extra dollars to help out with the DXpedition expenses. So, sending QSL cards direct can be expensive, but there are alternatives.

Almost all national radio societies around the world operate a QSL bureau. Members send their cards, in

batches, to their national QSL bureau, and these cards are then sent to other national societies in bulk. Once QSL cards arrive in Canada at the RAC QSL bureau in Ottawa, for example, they are mailed, again in bulk, to the provinces. So in BC QSL cards for you will be sent to the BC QSL Bureau Manager. If you don't have an arrangement with the BC QSL Bureau, then cards sent to you will be stored but eventually discarded. It's a pity to miss out on cards sent to you, but the situation is easily rectified.

Sending out your QSL cards using the RAC QSL bureau requires that you be a RAC member, though to receive cards you don't have to be a member of RAC. If you don't want to miss out on QSL cards which are sent to you, send about \$10 to the BC QSL Bureau Manager and the rest will be done. Your \$10 will be used for postage and envelopes to send you your QSL cards. The BC QSL bureau is operated on a voluntary basis by Ken Clarke, VE7BC. If you want to receive cards sent to you, send Ken \$10 (or more) to PO Box 1109, 100 Mile House, BC, V0K 2E0. If you want to know if you have any cards waiting for you, email your name and call sign to Ken at ve7bc27@gmail.com. Ken also operates a web page about the BC Incoming bureau which you might find helpful; the address is www.qsl.comm.sfu.ca, click on QSL.

Fall Basic Course by NARA

David VA7DXX and Mike VA7WPM will put on another NARA Basic exam course starting in October. The course will be online and delivered on Zoom. There will be 11 sessions in all. The first session will be on a Saturday followed by 10 two-hour sessions spread over a 10-week period. This configuration has been demonstrated to allow students to study on their own after each course presentation. If you are interested to join the course, or know someone who is, please contact Mike at keelcove@shaw.ca ASAP.



Amateur Radio Satellite Operating Stories and News - Bruce VE7PTN

I am just back from a holiday trip to Ontario where we stayed in a home on Jackfish Lake near the north shore of Lake Superior.

I had decided to take my portable satellite radio gear (two ICOM IC-705 radios with an external battery), and this was my first experience of flying with such equipment. I had heard stories from other hams that there can be difficulties with airport security screening while carrying radio gear, in particular the relatively large external lithium batteries. So, I did some research in advance to find out what were the restrictions. And I was prepared to remove my radios and battery from my carrying case for inspection. I removed the various connectors and cables and stowed those in my checked luggage to not misplace them when handling the radios at the screening station.

A very good summary of the Canadian battery restrictions can be found on this Canadian Air Transport Security Authority (CATSA) website: <https://www.catsa-acsta.gc.ca/en/what-can-bring/guidelines-batteries>. (Note that each country's authorities may have slightly different restrictions.)



Examples of small (<100Wh), medium (100-160Wh), and large (>160Wh) lithium batteries as classified by Canadian Air Transport Security Authority (CATSA) website: <https://www.catsa-acsta.gc.ca/en/what-can-bring/guidelines-batteries>. Note the Wh rating printed on each battery – this is the number of interest for the CATSA agents.

Hams usually refer to battery capacity in Amp-hours (Ah) but the CATSA guidelines are in Watt-hours (Wh). The math to convert from one to the other is relatively simple: $Ah \times Volts = Wh$, and is detailed on the website.

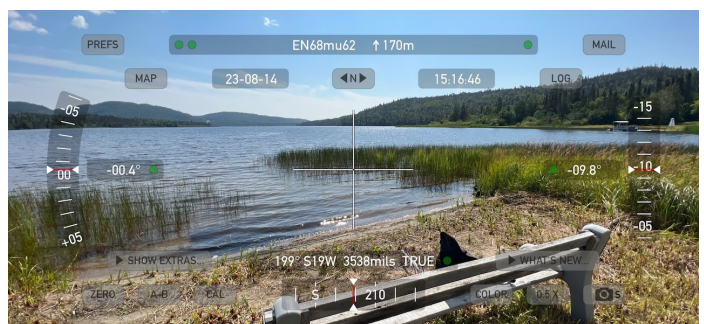
However, the agent that you are dealing with may not be familiar with this and you might have to ask for a supervisor. My batteries happened to also have the Wh labeled in somewhat smaller print and this was even pointed out to me by one of the screeners as I hadn't even noticed myself.

If you plan to travel with “medium”-sized battery (100 to 160 Wh), consider installing it in a battery box so that you could argue that it fits the “in device” category. This has less restrictions than if you carry it loose which is considered the “spare” category.

In the end, my air travel experience was without issue. I did have to remove my radios and battery from the case as expected. All the agents were very helpful. My battery is a 7Ah / 84Wh model so within the “small” category. (I could have flown with my 10Ah / 120Wh “medium” battery but, given the weight of the radio gear I packed around the airports and aircraft, I appreciated my lighter battery choice.) I did notice less experienced agents consulting with a more senior agent to confirm the battery suitability for travel. At one of the screenings my radios were swabbed for chemicals – a free cleaning! I will not hesitate to fly with radio gear, in Canada, again.

While I was in Ontario with my gear of course I worked satellites, activating the rare-ish EN68 Maidenhead grid square. I made 149 QSOs over 23 passes. While I was sitting on a bench at the shore of Jackfish Lake and working the crossband voice repeater on the International Space Station, astronaut Flight Engineer Woody Hoburg joined in as NA1SS. Even though I was QRP relative to other stations, I was able to QSO with him for my third astronaut contact. It was great to hear him and receive the greetings “VE7PTN, welcome aboard NA1SS” and “hey Bruce good to talk with you. 73

Of course, I had to try something new for this rove (other than flying with gear) and I had decided to



My operating location on the shore of Jackfish Lake, Ontario. From here I worked Flight Engineer Woody Hoburg as NA1SS, aboard the International Space Station.

experiment with the Greencube (IO-117) packet satellite. I say experiment because being a medium earth orbit (MEO) satellite, it is at a much higher altitude of 6,000 km compared to the typical low earth orbit (LEO) satellites I usually work (about 400 to 1,500 km).

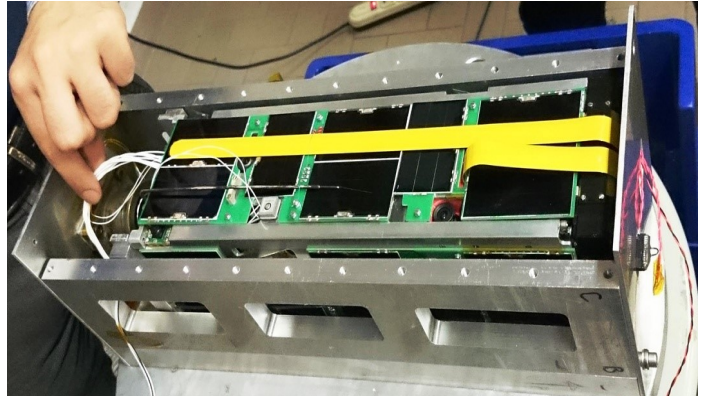
Typically, I work IO-117 using an ICOM IC-9700 with up to 100W and a high gain antenna. But for air travel I took my ICOM IC-705 radios (max 10W) and lower gain Arrow II packable antenna. So I wasn't even sure the gear could work the satellite. To top it off, I hadn't configured the IC-705 or tested the setup before leaving home. It was a somewhat frustrating afternoon at the lake getting the IC-705 configured for packet and working with the necessary computer software. (Unexpectedly there was only spotty cell service at the holiday QTH so my access to Internet resources for configuration hints was more limited than expected.) But I was eventually successful in getting the configuration working for my travel rig.



My QRP and low gain but super portable rig for the Greencube (IO-117) medium earth orbit packet satellite.

When I tried my first IO-117 pass, I was pleasantly surprised at how well my rig worked, and I managed 15 QSOs. There was some local QRM from power lines that degraded the downlink in one direction, but this faded as the satellite gained elevation. Subsequent passes were also successful to varying levels. I handed out the EN68

grid to stations from Japan, Canada, USA, Mexico, Cuba, Denmark, Norway, Honduras, England, Italy, Germany, Russia, Brazil, Spain, Scotland, France, and Ecuador. (IO-117 has a very large footprint.) My best range to the satellite for a QSO was just shy of 10,000 km as the satellite was on the southern horizon



The large footprint Greencube / IO-117 satellite

Well, that's all for another month. I have mentioned Greencube / IO-117 in several of my articles. Next month I will prepare a more detailed explanation and how-to for this interesting satellite. 73.

NARA's Ham Happenings

September 17

Cedar Hall

2388 Cedar Road, Nanaimo

Doors open at 10 am

Admission \$5

See you there?

The volunteer group of NARA members producing this newsletter would like to thank all those who provided material for this month's issue.

The NARA Newsletter is normally published on the last Friday of the month preceding the month of issue

News items and comments should be sent to:

news@ve7na.ca