

The

August 2023

NARA Newsletter



President's Message – Randy VE7FAA

Wow. What more can I say after seeing the hard work and engagement by NARA members at the various events so far this summer.

Most recently NARA showed why it was worthy of being honoured by the Loyal Nanaimo Bathtub Society at its 2023 event. The radio support for the race, literally from start to finish, was superb. Information on all aspects of the race, including a wayward whale who apparently did not get the memo to stay out of the way of the tubbers, was passed quickly and accurately, contributing to making the race a great success. Thanks to all who participated.

It's only August and summer is not done yet. Many NARA members are signed up to attend the north Island camping trip this month, which doubles with the north Island repeater maintenance work bee.

Unfortunately, the VELO Unpaved Bike Race that was set for Aug. 26 on the lower slopes of Mount Benson has been cancelled due to high fire risk. But plans are in the works for an alternate NARA-sponsored amateur radio event on that same day. Once details are finalized members will be provided details via the club email system and the NARA website.

That's all until September. Be safe and have fun for the remainder of the summer.

VELOS Bike Race - Cancelled

The VELOS Bike race slated for Saturday Aug. 26 has been cancelled because of increased fire risk in the back country around Mount Benson. Mosaic Forest Management, which looks after the forestry land, has declined to issue a permit to the Mid Island VELO Association for the race. As we know, everything is tinder dry out there, even after the rain towards the end of July. Those who thus far had volunteered to help with the race safety communications — thank you — have already been notified. However, NARA is in the process of planning

another event involving NVIS propagation for Aug. 26, so watch your email closely and please participate if you are able.

NARA Summer Picnic

Over 40 people attended NARA's 75th anniversary picnic at Beban Park on Saturday, July 15. It was hot and sunny but the large park gazebo shelter, which had been arranged by NARA executive member Mason VE7PMD, provided shade and lots of tables and seating. Clearly everyone had a good time with the club providing hot dogs and drinks, and with just about everyone else bringing food to share. During the picnic NARA President Randy VE7FAA presented a special vest to Gerry VE7BGP for his long service to the club.



Overview of the Beban Park NARA 75th Anniversary picnic



A delighted Gerry VE7BGP showing off his new vest, which had been presented to him by President Randy VE7FAA

Canada Day Contest 2023

The Canada Day contest followed only one week after Field Day and was thus not for the faint-of-heart contester. About 15 members and visitors came out to VA7DXX's cabin near Ladysmith to operate, advise, and watch.

In about 15 hours of operating from the evening of June 30 into Canada Day itself, the group made about 430 contacts, which was nearly double the number of contacts made in 2021 from the same location. Contacts were made on all bands from 80m to 2m and on 2m FM many club members called in to provide points to VX7NA – thank you to all who participated.

David's Elecraft K2 was used exclusively on the 20m band for CW and SSB using the SteppIR antenna. On the evening of June 30 a number of European stations were worked in England, Finland, France, Latvia, Serbia and Sweden. These countries only count for one point in the Canada Day SteppIR SDA but still demonstrate that the 100-watt 20m signal was 'getting out' effectively. On the other bands NARA club equipment was used from two tents set up by the cabin.

Visitors included Matt VA7USD, Ian VE7FSM, Donna VA7DSW and David VA7DGV.

The Canada Day contest is always as much about fun and camaraderie as serious contest operations, and as such is an ideal event for those new to contesting.



Overview of the Canada Day set up with stations set-up in the cabin and close by using several tents



VX7NA's youngest Canada Day operator VE7-Annika calling CQ on the 15m band



David's home made Elecraft K2 100-watt transceiver was used exclusively on the 20m band with the SteppIR antenna



Visitor Matt VA7USD operating on the 2m band



NARA's Secretary, Devan VE7LSE, celebrated his birthday on July 1 and hosts Rosemary and David provided a birthday ice cream cake

VX7NA – NARA’s Special Call sign

NARA’s Special 75th anniversary call sign, VX7NA, was primarily used in the Field Day and Canada Day contests. In addition, Gerry VE7BGP activated VX7NA during his Wrong Button Club sessions on July 21 and 24, thus giving many club members a chance to get this special call sign in their logs. In all some 1,500 contacts were made using this special event call sign. NARA has made the decision to send QSL cards, via the RAC QSL bureau, to everyone who made contact with VX7NA. NARA member David VA7DXX has volunteered to look after these QSL card arrangements.



NARA’s VX7NA 75th anniversary QSL card

How is DX – David VA7DXX

The World Radio Team Championship (WRTC) took place over the weekend of July 9-10. This competition, for the very top contest operators in the world, is held every four years. This year it was held in Italy. To quote from the WRTC webpage:

“Teams of two operators representing a geographical region of the world come to the host site to compete using similar antennas and locations, overseen by on-site referees. The WRTC competition has typically been held as a contest-within-a-contest coincident with the IARU World HF Championship to capitalize on the high activity of a popular world-wide operating event.”

Over the weekend of July 9-10 I managed to grab an hour’s operating late on Saturday evening. The 20m band was in great shape for Europe and I did manage to work 14 of the WRTC competitors on CW. The call signs of the teams are not announced before the competition so that there can be no favoritism by amateurs working their own countries team.

The Italian government had issued special call signs for the competitors starting with ‘I’ for Italy plus two numbers and a single letter. For example, the winning

VA7DXX

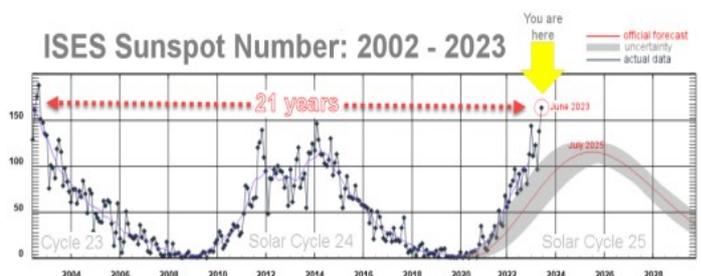
team from Ukraine - a fitting tribute to that country - used the call sign I44W. It is worth noting that this winning team was Yaroslav UW7LL and Yuri VE3DZ. Yuri got involved with contests in his teens and today is one of the top two contesters on the planet.

I did not work I44W, the winner, on 20m CW, but I did work I43C (DJ5MW & DL1IAO) who were second, and also I49D (9A7DX & 9A3LG) who came in third. Because covid caused some disruption to the WRTC schedule the next WRTC will be held in the UK in 2026.



WRTC 2023 contestants and referees waiting for the assignment of call signs to the participating groups

The sun has been breaking records again as the monthly average sunspot number for June 2023 was 163, according to the Belgium’s Royal Observatory. Solar Cycle 25 wasn’t expected to be this strong. When it began in December 2019 forecasters believed it would be a weak cycle akin to its immediate predecessor, Solar Cycle 24. Instead, Solar Cycle 25 has shot past Solar Cycle 24 and may be on pace to rival some of the stronger cycles of the 20th century. The last time sunspot numbers were this high the sun was on the verge of launching the Great Halloween Storms of 2003, which included the strongest X-ray solar flare ever recorded (X45), auroras as far south as Texas, and a coronal mass ejection (CME) so powerful it was ultimately detected by the Voyager spacecraft at the edge of the solar system. (Thanks Space Weather).



I seldom use the 12m (24.890 - 24.990 MHz) amateur band because up until recently I have not had a suitable antenna. However, on July 19 I decided that this would be a 12m band day. I guess that I was lucky because band conditions on 12m seemed really good. Over the course of the day, in about 45 minutes of total operating time, I managed contacts in Africa, Europe, North and South America, the Pacific, Asia and Australia. The following day conditions were not so good but with increased solar activity looking at the higher HF bands might well prove interesting.

For August look out for DXpeditions to the Democratic Republic of the Congo (9Q2WX), St Kitts & Nevis (V47JA) and Mariana Island (KH0). Any operation from the DR of Congo is considered quite rare for DXers. Vlad OK2WX will be operating on his own from Aug. 20 to Sept. 9 on CW, SSB and Digital.

An interesting comment from the ARRL: The ad hoc group calling itself "Shortwave Modernization Coalition" petitioned the Federal Communications Commission (FCC) to allow data communications on multiple bands within the HF 2 - 25 MHz range with up to 20 KW, including in bands immediately adjacent to spectrum allocated to the Amateur Radio Service. This group appears to represent high-speed stock trading interests. The FCC has designated this petition as RM-11953. Comments were due by July 31, 2023, and reply comments by Aug. 15. While these high-power commercial petitioners exclude the amateur bands, high-power operations on immediately adjacent bands are proposed. The ARRL is reviewing the petition. A copy of the petition can be found in PDF format at: <https://www.fcc.gov/ecfs/document/1042840187330/1>.

Finally, the call sign 1A0C might not be known by many except perhaps the keenest of DXers. The call sign 1A0C belongs to The Order of Malta's Italian Relief Corps (CISOM) which is based in Rome, Italy. Every few years this call sign is activated. The last time I last worked 1A0C was in July 2019 and as far as I am aware that is the last time the station was on the air. In late July the station was again activated, this time by a largely Italian and Spanish team plus JH4RHF and RA9USU.

I managed to work 1A0C on CW on 20m and 17m but then started to wonder why this Relief Corps counted as a DXCC country. Not knowing the answer, and in the best traditions of the game show 'Who wants to be a

Millionaire,' I decided to phone a friend. Since this friend is an ex-chairman of the ARRL's DX Advisory Committee I suspected that he might know the answer to my question. Indeed he did. Apparently CISOM applied for DXCC status in 1981 and on investigation it was realized that not only did CISOM have its own ITU call sign designation, but they also issued passports and stamps. Although the land in Rome is small, CISOM had all the trappings of a small country and so was granted DXCC status. Also, my investigations revealed that the relief, medical and humanitarian work carried out by this relief corps is truly amazing.



The main building in Rome for the Order of Malta's Italian Relief Corps (CISOM) which hosted the 1A0C operation

Buffalos On the Air (BOTA)

On Saturday, July 22, four of the de Havilland DHC-5 Buffalo aircraft, now retired from military search-and-rescue service, got on the air. At Comox the call sign used was VC7BUFF457 (yes, the call sign was a bit of a mouthful). The Comox Valley Amateur Radio club supported the event, which aimed to link three other retired Buffalo aircraft across Canada on the 20m band using the wire antennas on the aircraft.

Phill VA7XOZ, from Comox, the organizer of the Buffalo event provided the following:

On Saturday, July 22, the Comox Valley Amateur Radio Club activated the HF antenna on Buffalo 457 at the Comox Heritage Air Museum. Using their special event call sign, VC7BUFF457, they made contact on amateur radio frequencies, mostly in the 20m and 40m bands. They joined the other retired Buffalos at Winnipeg, Man., Trenton, Ont., and Summerside. P.E.I., who were also transmitting with their own local clubs and creating a Buffalo radio net coast to coast! This was a great way to honor the retirement of this steadfast and reliable search-and-rescue plane. Join us next year on Aug. 9, when we'll honor the 50th anniversary of Buffalo 461 that was

that was shot down in Syria during UN peacekeeping operations, resulting in the loss of all nine souls on board, now known as National Peacekeepers Day.

(Note: the Buffalo search-and-rescue aircraft, retired after about 50 years of service, is being replaced by the CC-295 Kingfisher, put into production by Airbus from a Spanish designed aircraft.)



Phill VA7XOZ and the Comox Valley ARC combined their efforts to host the Comox Buffalo call sign VC7BUFF457

The 2023 Bathtub Race

This year's Great International World Championship Bathtub Race, watched by large crowds around the Nanaimo harbour, went extremely well.

About 20 NARA members and others were located on land and on boats to report the locations and times for the 36 bathtub entrants.

At Bathtub control on the 12th floor of the Coast Bastion Inn NARA was using a spread sheet system designed by Chris VE7TOP to log the times for the tubbers at the various observation points. The spread sheet was updated to the Bathtub website every five minutes and gave viewers an almost real-time view of where the bathtub entrants were located.

There is a proposal to use APRS tracking next year to track four of the tubbers as part of a pilot scheme. An initial go ahead was agreed at the race but this needs to be formalized.

One highlight of this years event was Janine VE7NEE reporting the sighting of a whale near the course.

This year's winner of the Bathtub race was Brandon Skipper in a new record time of 1 hour 43 seconds.



The view across Nanaimo harbour from Bathtub control on the 12th floor of the Coast Bastion Hotel



Burnie VE7IAD operating and Chris VE7TOP working on the spreadsheet. The second radio operator was Jack VE7GDE



The marine operator provided by the Bathtub Society was in communication with the bathtub chase boats on Channel 73

NARA's website is:

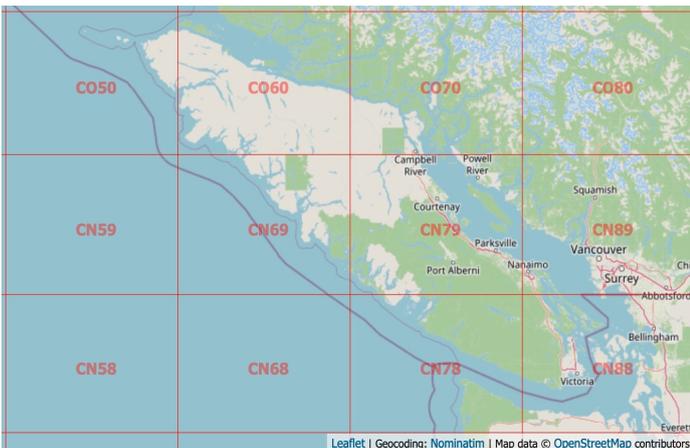
<http://www.ve7na.ca/>

The Satellite Downlink: Amateur Radio Satellite Operating Stories and News Bruce VE7PTN

As I mentioned in last month's article, this month marks a transition away from instructional articles to more of a news and stories format. This month I will cover the topic of satellite roving and the story of a recent rove that I made with my wife to Holberg, B.C. on northern Vancouver Island.

Since amateur radio satellites mostly use VHF and UHF bands, they are frequently associated with the VHF/UHF Century Club (VUCC) award. This recognition is awarded for contact with a minimum number of Maidenhead 2 degrees by 1 degree grid locators per band; for satellites it is 100 grids. Grid locators are designated by a combination of two letters and two numbers. More information on the Maidenhead grid system can be found at: https://en.wikipedia.org/wiki/Maidenhead_Locator_System.

There are eight Maidenhead grids that cover Vancouver Island: CN69, CN78, CN79, CN88, CN89, CO50, CO60 and CO70 (Figure 1.).



Map courtesy of <https://dxcluster.ha8tks.hu/hamgeocoding/> showing the Maidenhead grids that cover Vancouver Island.

An operating goal of mine has been to activate all the Island's grids via satellite. After a trip to Gold River to activate CN69 back in May, only CO50 remained. I looked at the CO50 overlap with the Island to scan for a good operating location. As it turns out, the grid border between CO50 and CO60 runs right through a parking lot at the Holberg wharf (Figure 2.). If I operate right on the grid border line, it is acceptable practice to give out two grids at once, meaning that operating here would be a "twofer" of CO50 and CO60, both rare grids on satellites.

Although I had already activated CO60, I had only worked one pass there and just five QSOs, so this grid could use a little more attention. I also liked the Holberg location because it had good eastern and southern sky visibility over the Holberg Inlet, the direction to most North American satellite operators I would be contacting.

With this information, a rove to Holberg was shaping up. My wife Andrea and I have also wanted to visit the beach at San Josef Bay in the Cape Scott Provincial Parks, about a 45-minute drive from Holberg. So, we planned a four-day trip to the north island with one day for a San Josef Bay hike and one day for satellite operations, bookended by travel days. Accommodation options are limited in Holberg but some Internet searching showed that the general store also has rooms for rent. We called them up and were pleasantly surprised that they had availability for July 20th to 23rd, our preferred dates – trip booked!

The amateur radio satellite operator community is most active on Twitter as a means of communicating upcoming ops, so I made an initial post a couple weeks in advance to advertise my activation plan. This post received a lot of interest with lots of operators saying they would be hunting me. Closer to the date I planned my actual satellite passes and posted these on a new website at <https://hams.at> (get it: "Ham Sat"?). This is an excellent resource to find and advertise satellite operations. It allows you to specify your operating grid to see what operations are coming up and whether they are "workable" between your location and the operator.

On July 20th we left Nanaimo and headed north to Holberg. After a dusty drive out the logging road from Port Hardy, we arrived at the "rustic" general store and checked in to our accommodation. Although it looks rough on the outside, inside our room was clean and comfortable. Before heading to the pub for dinner, we checked out the planned operating location at the wharf.

Ham Happenings

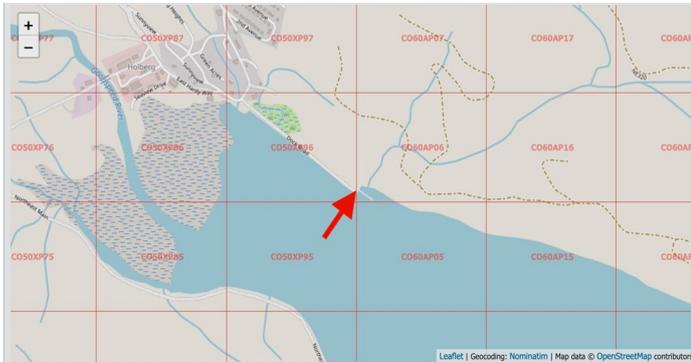
By NARA

September 17, 2023

Cedar Hall, Cedar

Note the date!

It looked perfect with plenty of room to setup and good sky visibility (i.e., more open water than trees). In one corner of the gravel parking area, we noticed a 1980s vintage Toyota Land Cruiser with right-hand drive, and an elderly gentleman seated in a camp chair beside it. We introduced ourselves and found that he was visiting from New Zealand, having shipped his Land Cruiser from down under to Canada. He has done this a few times and to various locations. He was camping in Holberg and was excited to hear about our operating plans for two days later



Map courtesy of <https://dxcluster.ha8tk.s.hu/hamgeocoding/> showing the CO50/CO60 grid border line at Holberg, BC.

On July 21st we made our trip to San Josef Bay. The weather was dry and partly cloudy, great for the three kilometre hike out to the bay. The parking lot was completely full, so the area is quite popular (it also provides parking for those doing the multi-day hike to Cape Scott). The beach area is sandy and large enough that it did not seem crowded at all. We had an enjoyable lunch at the beach before heading back to the truck. On the way back to Holberg we made a side trip to Winter Harbour where we enjoyed an ice cream and a rocky beach walk. Back in Holberg we visited the only pub in town for the second dinner of our stay.

July 22nd was activation day. Sadly, the weather was much wetter than the previous day. However, this was as forecast, and we were prepared with a portable shelter to protect the gear from the intermittent showers. We arrived at the operating location about 10 am and setup the shelter and radio gear to prepare for the first satellite pass at 10:40 am (Figure 3.). There were occasional wind gusts, so we took the precaution of securing the shelter with rope to various heavy things, including our truck. This would turn out to be a very good decision later in the day.

Typically, when I have been doing portable satellite operation, it has been during a family camping trip. Andrea would usually stay at the camp site while I wandered off somewhere to find the sky and operate. This operation would be the first time we had both been there for a day-long session and I was worried that this would not be very interesting for Andrea. To hopefully make it more interesting for her, I asked if she would look after tracking the satellites with the Alaskan Arrow Yagi antenna. She said that she would give it a try. I gave her some instruction on how to do this, using a smartphone app to see where to orient the antenna. And I set her up with headphones to also hear the audio for adjusting the antenna polarization. I included an RF safety briefing, cautioning her to never touch the metal parts of the antenna while we are operating, only the insulated handle. Again, this was another decision that would prove to be good later in the day.

The first pass of the day was the linear satellite JO-97. This is a decent linear satellite but not that popular compared to RS-44. Probably due to my Twitter and hams.at advertising, the pass was busier than usual. I worked eight stations, including one from Mexico. Passes of this satellite take about 10 minutes from horizon to horizon, but with the trees and hills around us we had about four minutes of workable pass. So things were very fast paced for Andrea and me. She did an excellent job on her first experience of satellite tracking. With her looking after antenna duties, I was able to focus on the QSOs and logging. We both had a great time operating; she was very excited about the action and hearing things live. We didn't have much time to catch our breath as there were four FM satellites approaching in a train, the new TEVELs, and I had plans to work them all. Over the next 80 minutes we worked TEVEL2, TEVEL7, TEVEL4 and TEVEL6 with only a few minutes break between them for another 16 QSOs.

Next up was our first pass of two for the very popular linear satellite, RS-44. I expected this pass to be busy because the satellite footprint covers the entire populated area of the continent and several operators had reached out to me saying this was their shot at CO50/CO60. Well, it sure was busy! With our limited visibility we had about 10 minutes of the 20-minute pass available to work. Being a linear satellite, the modulation is SSB so all calling stations piled up on one another. As soon as I could get into the satellite and announced

myself, I was beset by a cacophony of call signs that would go on for about 10 seconds straight. I did my best to pull out partial call signs and reply to request the full call. Each QRZ would initiate another pileup. I managed to complete 11 QSOs, leaving many operators unanswered and waiting for the next pass.



Andrea and Bruce ready to operate satellites from the CO50/CO60 grid line, Holberg, B.C.

It was about 1300 hrs after the pass and time for our lunch break before the next RS-44 pass at 1430 hrs. One of Andrea's favorite activities is to take her single-burner camp stove to some outdoor location and make tea. She had brought the stove that day and used it to boil water and make us a rehydrated warm lunch, all the while grinning from ear to ear as we relived the morning's action. We were visited by the New Zealander and shared stories while we sheltered from the light rain.

For the next RS-44 pass I replaced Andrea's headphones with a Bluetooth speaker so that both she and the visitor could hear the audio. This pass was also busy, but the pileup was less intense, and I completed 12 QSOs.

Next up was AO-7, the oldest surviving amateur radio satellite, launched in 1974. It is nicknamed "The Zombie Satellite" due to its 20-year operating hiatus before coming back to life in 2002. It has the largest footprint of any low earth orbit ham satellite and if functional at the time (not a given) it could be a popular pass. Well, the old bird came through as it was working well and in the correct mode for my planned operation. I started working the pass and making QSOs, but about four minutes in the weather got nasty and the rain was accompanied by wind in a way that it had not been earlier. In a moment, the rain blew forcefully under the

shelter, sprinkling on my radio, computer, and logbook. Thankfully the ropes we applied earlier kept the shelter on the ground. Like a hero, Andrea removed her jacket and spread it over the radio, while I disconnected the computer and put it away in its case. My logbook got wet, so I put it in our truck to dry off. The rain only lasted a few minutes, and no damage was done to the equipment due to our quick response. Sadly, we missed out on a few QSOs, but such is portable operation.

We finished up the day with two more FM satellites. The first was SO-50 and it was during this pass that my safety briefing would prove helpful. I noticed that when I was transmitting I was getting a lot of popping noises on the downlink. I have experienced this before, and it usually means that I am putting out too much power and picking up harmonics from the uplink. So, I dialed down my power, yet the problem persisted. Andrea was saying something to me but with my headphones on I could not hear it and assumed she too was remarking on the popping noise. I continued to work the pass and made another seven QSOs. After the pass, when I took my headphones off, Andrea told me that some of the elements had come unscrewed and were moving around a bit. This for sure was the cause of the harmonics I was hearing. She knew that she should not touch the elements to tighten them while we were operating and thankfully so, or she could have received a nasty bite of RF energy. It was also a lesson for me in clear communication and to remove my headset to really hear what is being said!



Our operating location at the community wharf at Holberg, B.C. This photo was captured using the smartphone app Theodolite (<https://hunter.pairsite.com/theodolite/>).

The last pass of the day was PO-101 and three more QSOs. With our view down the Holberg Inlet all day we had been able to see approaching rain showers as they blew up the inlet towards us. As we finished the pass it was sunny and dry, but we could see another shower coming. We quickly packed up the gear while it was dry and loaded it into our truck. We said our goodbye to the

New Zealand visitor that had hung out with us all day and enjoyed the action. After 61 QSOs and 54 call signs it was off to pub for our third dinner, and a chance to relive the day's experiences. What a great day it was!

I had planned to work the new medium earth orbit satellite called GreenCube (IO-117). This bird has a packet digipeater as its communication option, and with its higher orbit it has simultaneous coverage of almost a full hemisphere of the Earth. This would allow QSOs much farther abroad than North America, and several Japanese and European stations had expressed interest in working me on this rove. Unfortunately, a few days before the trip the satellite went offline and remained so during the rove. So, no DX on this expedition. It is back online now, and we are already considering a return to CO50/CO60 in September to work it.



The RS44 satellite pictured under construction

Well, that's all for another month. This month (August) we are off to Ontario for a couple weeks and I am planning to take some satellite gear with me. This will be my first experience of flying while carrying radio gear, so perhaps more stories to tell.

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:

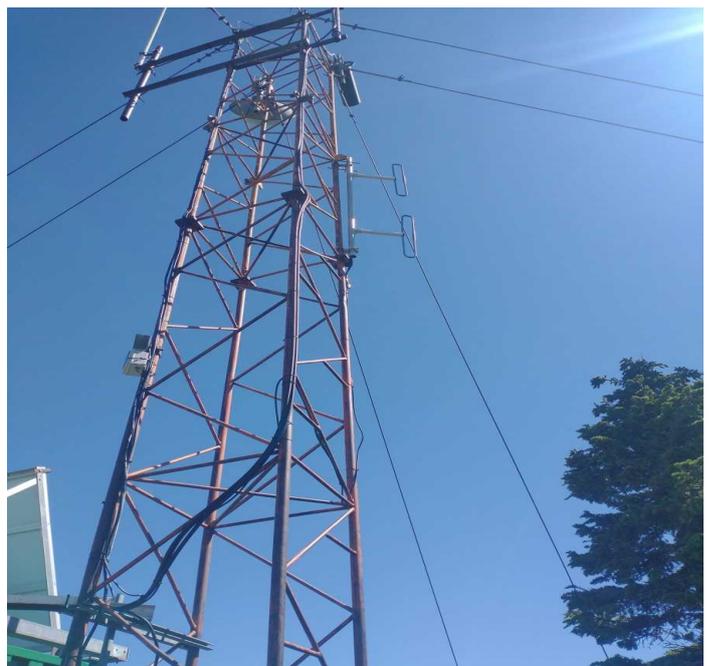
news@ve7na.ca

North Island ARS and Work Bee

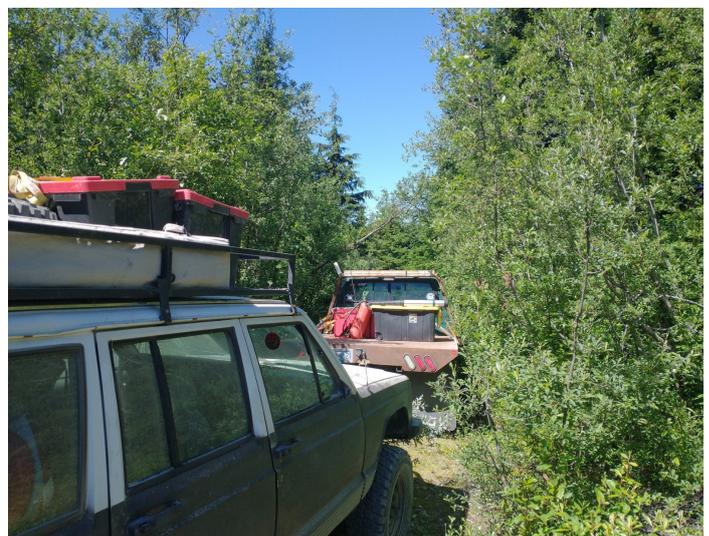
Maintaining the Vancouver Island Trunk System might not be a full time job but it certainly requires a lot of work.

Each year members of the North Island Amateur Radio Society travel up to the north end of Vancouver Island for a few days in order to maintain several of the ITS sites. This year the camp out takes place from Aug. 17-22 and this year's base of operations is the Cluxewe Resort at Port McNeil.

It's not too late to attend or visit and if you are interested please contact Devan VE7LSE (ve7lse@gmail.com)



The 2022 NIARS projects included several of the north island sites critical to the Island Trunk system



Part of the fun of maintain the ITS repeaters is getting to some of the remote sites as this picture illustrates