The June 2023

# NARA Newsletter

## President's Message – Randy VE7FAA

Since it's a busy time of year both personally and in amateur radio, just a short note this month.

In just a few weeks is the high point of the year for the Amateur Radio Service, Field Day. For a second year NARA members will gather at the Sunnus farm in Yellow Point.

From the amount of organizational work already happening, Field Day 2023 is shaping up to be well worth attending. It begins Saturday morning, June 24, and ends Sunday morning. Once again, I will be cooking the wrap-up Sunday breakfast.

Field Day is not a contest but an event aimed at creating and testing the best operational scenarios outside regular operating. It's an ideal way for all hams, not just new ones, to get valuable experience in everything from field operations to CW. And it's a lot of fun. We hope to see you there.

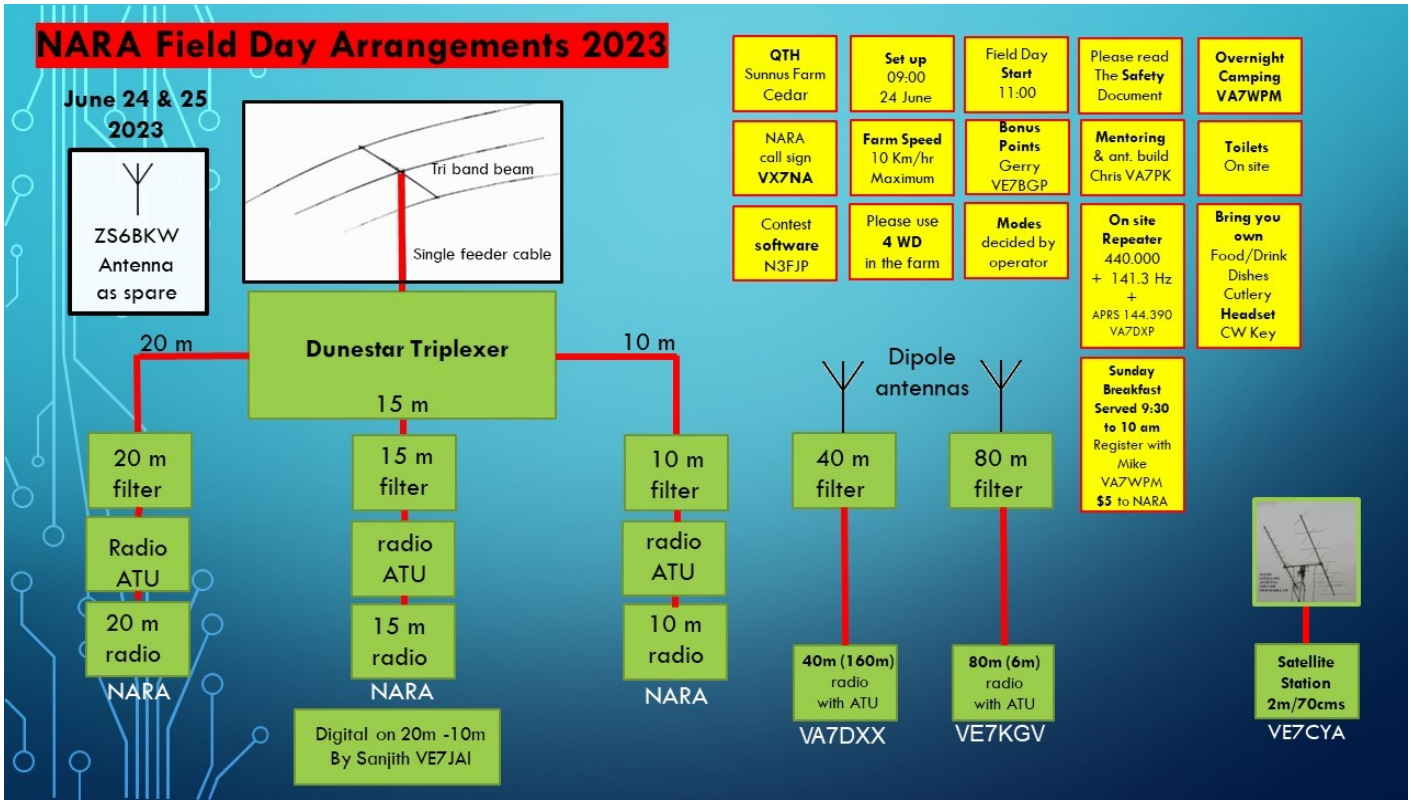
A detailed package about Field Day has already been sent to all members, plus there is information in this newsletter letter and on the NARA website.

## NARA Field Day - 24/25 June 2023

All NARA members should by now have received the Field Day package sent out by NARA secretary Devan VE7LSE in mid-May. If you have not yet received the package, please email Devan VE7LSE (ve7lse@gmail.com).

This year NARA is going to try something new to make it easier for members, at all experience levels, to get on the air. Chris VA7PK is collecting names of experienced members who are willing to be on hand to assist anyone who wants to try their hand at SSB or CW (Morse). If you are interested in being one of our "Field Day Elmers", please email Chris (parkerca@ieee.org) to get more information.

If you plan to bring a trailer or camp overnight at Sunnus farm, or attend the Sunday breakfast, please register with Mike VA7WPM (keelcove@shaw.ca) as NARA needs to know the numbers. If you intend to come to the Sunday breakfast, please note that there is a $5 registration fee, required in advance of Field Day, payable to the NARA treasurer via e-transfer to naraetrans413@gmail.com.



# POTA Activation (VE - 4012)

Over 20 visitors enjoyed the above seasonal temperatures for the POTA activation arranged by Mason VE7PMD on Saturday, May 13. Several stations were set up and contacts were made on SSB, CW and digital modes into Canada/US on HF. The Rathtrevor Park location in Parksville (POTA VE-4012) was perfect with nearby trees offering shade from the sun. A fun POTA activation and definitely worth doing again.

***General view of the site at Rathtrevor Park. The hire of the site included the permanent park canopy complete with running water. Power was supplied by batteries***

Mason VE7PMD submitted the following:

*For our first POTA (Parks on the Air) activation we were blessed with some great sunny warm weather. We operated multiple bands (40, 20, 2M). We had a great turnout with 15 members showing up to play radio. Matt VA7DMN brought his impressive setup and provided the internet to us all through his Starlink setup which made it very easy to spot ourselves to get some more contacts.*

*Sanjith VE7JAI was focused on FT8 Digital and logged 12 contacts, Mason VE7PMD and Devan VE7LSE played with 2M and 20 and 40 metres, and at the end of the afternoon I ended up getting a small pileup and got my contacts up to a total of 19.*

*Gerry VE7BGP made several contacts on morse code. Guy VA7VZ had his station set up and made a total of 15 contacts. Kevin VE7KGV was awesome and cooked the hotdogs for the crew. Everyone there had a fun-filled afternoon. We were very lucky with the great weather we had. There will be another POTA sometime in the near future. It was a great team effort to do this event.*


***BBQ Master Kevin VE7KGV, who brought his own BBQ, supervising the cooking of all of the hot dogs. Everyone brought their own supply and as a result there were about five times as many hot dogs as people to eat them!***

***The main operating position for the SSB and CW stations using the park benches also supplied as part of the hire***


***Sanjith VE7JAI brought his packet radio station and on a small vertical antenna for 20m made a number of contacts using FT8***

## How is DX – David VA7DXX

More DXpeditions on the list for June include: Central Kiribati (T31TT), Malawi (7Q7WW), British Virgin Islands (VP2V) Faroe Islands (OY), Bermuda (VP9), St Pierre & Miquelon (FP) and Ducie Island (VP6A).

Ducie Island is another rare DXCC entity and well worth trying from Nanaimo. The path from Nanaimo is almost due south and mostly over water, which is an advantage because HF signals returning from the ionosphere tend to reflect up again to the ionosphere if the earth-bounce part happens over water. The dates for this DXpedition are from June 10-24.

***Lonely and uninhabited Ducie Island located in the South Pacific counts as a separate DXCC entity***

This DXpedition will be a little different because the DXpedition operators (AA7JV, KN4EEI, W6IZT) will be near but not on the island. From a nearby vessel they will be remotely operating radios placed on the island. This DXpedition will use the RIB (Radio in a Box) system. I first came across the RIB at the Visalia DX Convention in California in 2019. The Radio in a Box is basically a large box with an HF station and RF amplifier that can be operated remotely. The Radio in a Box is placed on the island, antennas and a generator are attached, and the station is remotely operated from a boat stationed off the island. The operators typically need to top up the generator perhaps once a day. This is certainly an interesting concept because there are an increasing number of places around the world, islands in particular, which are protected for various reasons. The RIB low-impact approach certainly has an appeal and the VP6A DXpedition will confirm the concept, and more. The more in this case is that there will be a total of 14 remote operators based in Europe, North America and Asia using the station via the Starlink satellite system for their connection. This is likely a first for this rather novel approach. As for Ducie Island itself, it is an uninhabited atoll in the Pitcairn Islands group in the South Pacific. Ducie is a small atoll famous for several species of sea birds. It lies to the East of Pitcairn Island by 470 kilometers. Because of its distance from Pitcairn it counts as a separate DXCC entity.

On the day of King Charles III Coronation I was looking for the flagship station GB23C. They were operational on 28 MHz CW but I could not hear their signal. Fortunately, I knew the organizer and I emailed him. A little later GB23C appeared on 20m CW beaming on the pacific north west, and despite conditions being really poor we managed to make contact at 559 each way.

***The special event station GB23C celebrating the Coronation of King Charles III, from the Royal Naval College near London, attracted large numbers of the general public***

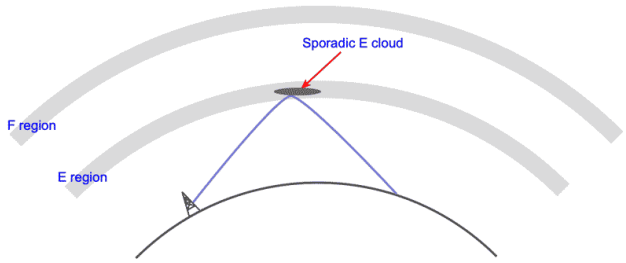
GB23C was located at the Royal Naval College very close to the Greenwich meridian (on which GMT/UTC is based) on the east side of London. The station, using beams for 20m and above and dipoles for the lower HF bands, made over 10,000 contacts with 136 DXCC countries. In the background of the picture you can see the masts of the famous Cutty Sark sailing clipper. On its maiden voyage in 1869 the Cutty Sark took wine, beer and spirits

from London to Shanghai. On its return trip it carried Chinese tea back to England. The British had started drinking tea from China in the 1650s and have seemingly been addicted ever since!

With regard to DXCC, Kosta VA7AF (also VE7KCY) completed his DXCC in mid-May with a couple of European contacts. Kosta's DXCC is a mix of digital, CW and SSB from his home located near Lost Lake.

Also, Tom VE7TOM in Nanoose has now worked 216 countries with 189 confirmed. Tom says he has received his 150 sticker for his DXCC certificate. Working 100-plus countries from the Pacific Northwest is certainly a credit to any HF operator. Well done Kosta and Tom.

Finally, the Sporadic E season on the 6m band started in May. With a wire antenna I made contacts around the US and anyone with a beam on the band will certainly have a field day!




***Ionized clouds form in the E layer and can enhance 6m signals over distances much further than ground wave or by weather enhancements***

## Summer has Sprung Antenna Projects

In early May weather in Nanaimo seemed to go from winter to summer overnight. This of course suddenly gave an impetus to a number of tower/antenna projects.

**VA7LGM**

NARA member Len VA7LGM became operational on HF on May 3. This followed an antenna session with Devan VE7LSE and David VA7DXX putting up an end-fed wire into a 60-foot tall tree at the end of Len's garden just south of Nanaimo. The first contact on 20m was with W6WHU in El Dorado Hills, California. The first QSO on 80m while testing the antenna was with Paul VE7XQL. Len's main HF radio is a Kenwood TS440s. Listen for Len on some of the local HF Nets.

***Len and Devan admiring the new wire antenna at VA7LGM***

**NARA Tower Assembly**

On May 7 a dozen or so NARA members got together at VE7GDE's home in central Nanaimo to assemble the 72-foot Trilon tower. The tower was originally destined for the Mt Copley site but that could change. All the tower sections were completed and just a few missing parts are now on order. The 72-foot tower was donated to NARA by David VA7DXX who had used it in Alberta.

***The first tower section has been completed thanks to lots of help and advise by NARA members***

**VE7IAD**

Burnie VE7IAD had an issue with his antenna, because somehow it got orientated 90 degrees off the correct heading, causing some puzzlement! So on May 16 Devan VE7LSE, assisted by Burnie and David VA7DXX from the ground, climbed to the top of Burnie's tower to sort out the problem. All is now well and Burnie is DXing again from his north Nanaimo location.

***Devan VE7LSE making heading adjustments to VE7IADs TH6 beam.***

**VA7DXH 220 Repeater**

Early last winter one of the VA7DXH 220 MHz repeater antennas developed a fault. This meant that over the winter the repeater, on Woodley Range just north of Ladysmith, was operating on a temporary, low-height antenna. On May 9 Devan VE7LSE, assisted by Len VE7LGM and David VA7DXX, replaced the faulty antenna. Great thanks also to Alan VA7ACL for providing technical assistance. It seems the VA7DXH 220 MHz signal on 224.040 MHz (minus shift & 141.3 Hz tone) is now back up to normal strength. There is a NARA check-in net on this repeater every Saturday morning at 10:30 am local.

# Ham Happenings

**By NARA**

***September 17, 2023***

***Cedar Hall, Cedar***

*Note the date!*

| Vancouver Island radio events | Date | NARA Coordinator |
|---|---|---|
| Field Day at Sunnus Farm in Cedar | June 24/25 | NARA Secretary |
| Canada Day | June 30/July 1 | NARA |
| NARA Picnic | July 15 | VE7PMD |
| Bathtub Race | July 23 | VE7TOP |
| *NIARS Campout* | *August 17-22* | *NIARS* |
| VIEX | August 25 | ? |
| Velo Unpaved Bike Race | August 26 | VA7DXX |
| Ham Happenings | September 17 | NARA Team |
| Sweepstakes Contest | November 18 | NARA |
| Canada Winter Contest | December | NARA |

## 81st Annual Ceremonial Review 205 Collishaw Squadron Air Cadets

On Sunday, May 28, the Nanaimo Air Cadets held their annual review, at which some 25 performance awards were presented at the Nanaimo Flying Club.

The Nanaimo Amateur Radio Association was acknowledged as providing a Basic amateur radio course for the cadets, and a certificate was presented to the cadet who obtained the highest mark in the Basic exam. In addition to the cadets and staff, several hundred parents, relations, trainers and well-wishers were present to witness the ceremony.

The Amateur Radio Achievement Certificate was presented to Iain, who is now licensed as VE7AXJ. On hand to present the certificate was NARA President Randy VE7FAA.


***Iain VE7AXJ receiving his cadet's achievement certificate***

## Taking a break

The excellent series on satellite communication takes a break this month. The series will return in the July issue of the NARA Newsletter.

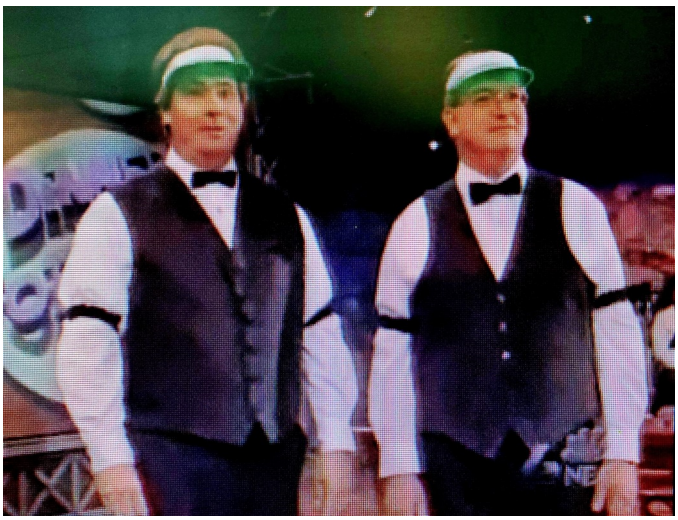
## Morse v Texting

On the 'Tonight Show' on May 13, 2005, Jay Leno held a Morse versus SMS texting competition as a part of his show. The competition was between two experienced radio hams and two Millennials using their smartphones for texting. The video of the competition can be found at Morse Code vs. Texting Contest on the Jay Leno's "The Tonight Show" - RF Cafe Video for Engineers. Even if you are not into CW this is really an amusing video to watch.

Chip Margelli K7JA did the sending and Ken Miller K6CTW did the receiving. The text message was sent by Ben Cook, who was the texting record holder in the Guinness Book of records in 2004, 2005 and 2009. Needless to say, the morse code won the competition in front of a TV audience of some 20 million viewers.

The sad news is that Chip Margelli died in late May 2023. Chip worked for Yaesu Musen first in Tokyo and then Los Angeles for some 30 years and after with Heil Sound Ltd, CQ Magazine, InnovAntennas Ltd and Ham Radio Outlet.

Chip was first licensed in 1963 and got his Extra Class licence in 1968. He was a member of FOC (First Class CW Operators' Club) and a very successful contester and all-round radio operator, and on that day in 2005 he made amateur radio and morse code famous.



***Chip Margelli K7JA (left) and Ken Miller K6CTW pictured on the 'Tonight Show' on May 13, 2005 dressed as old time morse telegraphists***

## VELOS Bike Race – August 26

An early call for volunteers for the VELOS Bike race on Aug. 26. David VA7DXX and Mike VA7WPM are looking after the radio side of the race. If you are looking forward to the VELOS bike race, please volunteer by contacting Mike VA7WPM at keelcove@shaw.ca.

## RF Exposure – You need to know

Radio signals are a form of radiation and as we all know from our Basic amateur radio course, exposure to radio transmission signals is a potential hazard.

Radiation from the sun in all its forms can be dangerous in excess. The sun radiates electromagnetic waves across a huge spectrum, which includes visible light, ultraviolet light, infrared, radio waves, x-rays and gamma rays. To reiterate, all can be dangerous in excess, and the radio waves which we generate from our amateur transmitters are no exception.

The important question that we all need to answer as responsible radio amateurs is, what safe distance should we — and others — be from our antenna?

Again, from our Basic exam course we know that Health Canada publishes Safety Code 6 as an RF Exposure guide. Safety Code 6 sets limits for RF exposure from all radio transmitters. But let's be clear, in most cases an HF amateur radio transmitter is unlikely to cause a health hazard. Nevertheless, we should all be aware of this safety issue.

We know that the human body absorbs RF energy most in the 30-300 MHz frequency range, the VHF spectrum, and that our eyes are at particular risk. We need to use more caution while transmitting on VHF than HF. A general guideline is the lower the power that you use and the further away you are from your antenna, the safer you are. Safety Code 6 does not set power limits, it specifies field strength as the limiting factor, both for the radio amateur and the general public (a near neighbour for example).

Based on the average power that we have at the antenna, antenna gain, the operational duty factor (for your mode), time on the air and other factors, how do we calculate the minimum safe distance from our transmitting antenna? Remember that RF exposure is a cumulative effect, the more RF we absorb the more our body heats up.

Now that all licensed radio amateurs in the US are required to be aware of RF Exposure, the ARRL has come up with an online RF exposure calculator which is available at arrl.org/rf-exposure-calculator. Using the calculator is straightforward and there is help available on the page. Once you plug in the correct information you can print out the results to have on hand.

## ARDEN Update

After a long winter NARA is looking at several new AREDN (Amateur Radio Emergency Data Network) initiatives. The major expansion of AREDN will happen a bit further north, where several new high-elevation sector nodes will be installed at the VE7KU repeater site on Mount Cokely. This work is a trial in a partnership between the Mid Island Radio Association and the Arrowsmith Amateur Radio Club.

This site, at a height of 1,100 metres, is just a little higher than Mount Benson at 1,018 meters. The road up to the Cokely site trail head has several sections where the snow lingers and access usually doesn't happen until late spring. Planning to this point has been done using Google Earth Pro images, always a poor substitute for an actual on-site survey. This site looks like it will provide the desired coverage, but this can only be confirmed once we get there.

The plan is to have two 90-degree sector antennas pointed to the east side of Vancouver Island. This should provide coverage from Parksville-Qualicum almost up to Fanny Bay. In addition, a third node using a directional dish will be pointed to Port Alberni to connect to the main site for the Alberni Emcomm AREDN mesh. From that location additional connections can be established in the Alberni Valley.

Until the trial confirms that the location will be suitable, this setup will be using borrowed equipment. Once we know the location will work we will start adding additional power infrastructure, with new solar panels and batteries separate from the existing repeater installation.

While this site may be key to expanding AREDN coverage in the Mid Island, this is only part of the expansions. Planning has started to provide a 'linking' site at the Parksville Community Centre with dishes pointing at Mount Benson, as well as the VE7KU site, to tie these mesh networks together. A local short-distance link will be set up to tie these nodes to the Parksville City hall where an emergency operations centre is located.

In Nanaimo NARA will expand AREDN with a tie-in from the new radio room at the Royal Canadian Air Cadet 205 Collishaw Squadron on Nanaimo Lakes Road. This station will provide an additional link to Mount Benson. Last weekend we confirmed that a good 21 dB signal-to-noise ratio can be achieved using a medium size dish pointed at the summit. The permanent installation should happen over the next few months and should support setting up a secondary PBX to support the IP phones currently in use on the mesh. The site will have a significant battery bank to ensure the AREDN mesh phone network should be resilient against power outages.

## Scouting out the Sunnus Farm for Field Day

In early May Bernie VE7IAD, Devan VE7LSE and David VA7DXX made a visit to the Sunnus Farm in Cedar to check out arrangements for the NARA field day. The reason for the visit was to talk with the Sunnus Farm owners, check out requirements for the field day site and to check on antenna orientation.

***Bernie (right), Devan and David (taking the picture) checking out the NARA field day site, at Sunnus Farm, in early May***

**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 mailed to:**

**news@ve7na.ca**