



# NARA Newsletter

#### President's Message - Mason VE7PMD

I write as the new president of NARA, having been elected by acclimation at NARA's recent Annual General Meeting which took place on Nov. 12, 2025. Thank you for your support and confidence in electing me as your new president.

The first thing that I want to do is to thank Randy VE7FAA for his tireless work as NARA President for the past eight years. Randy has not only chaired meetings with confidence but he has also provided a stable environment for NARA which has allowed NARA to move forward on many fronts. NARA certainly has grown over the past eight years.

I also want to thank Chris VE7TOP for the significant amount of work that he has undertaken as treasurer. Treasurer is one of the busiest offices in any volunteer organization. Chris has done a tremendous amount of work for NARA and has stepped up when others have not. Chris took over as treasurer at a difficult time for NARA following the passing of Bob VE7HS and he has been a key member of the NARA Executive.

NARA's 2025-26 Executive, as of Nov. 12. Left to right: Devan VE7LSE (Secretary), Darryl VA7DDU (Director), Mason VE7PMD (President), Greg VE7GGH (Director), Randy VE7FAA (Treasurer & IPP), Jack VE7GDE (VP) & Brandon VE7TZB (Director).

Island Events	Date/Month	Ву
NARA Christmas Gathering	Dec. 5 at 6:30 for 7 pm	NARA
RAC Winter Contest	Dec. 20-21, 2025	RAC
NARA General Meeting	Jan. 14 (on-line only)	NARA
808 Wing Pancake Breakfast	Jan. 18 at 9 am	808
Winter Field Day	Jan. 24	NARA
Nanaimo Science Fair	February	NARA
Bike Race (MIVA)	June	MIVA
Field Day (ARRL)	Jun. 27-28	ARRL
Canada Day Event/Contest	Jul. 1	NARA
Nanaimo Bathtub Race	Jul. 26	RNBS
NIARS Campout	August	NIARS
Ham Happenings (Nanaimo)	Sep. 12	NARA
RAC Winter Contest	Dec.	NARA

Chris is taking a rest from his heavy workload but will continue to be a most valued member of the association.

On behalf of all NARA's members, the NARA Executive has written to both Randy and Chris to thank them for their past work as president and treasurer.

I also want to thank each and every member of NARA for not only belonging to our association, but also for their past support in making NARA a successful amateur radio community. In addition, I want to thank those core members of NARA who have organized and made our events happen.

It is the end of the year and I want to thank all those volunteers that have made so many of our 2025 events so successful. Season's greetings and I hope to see you all at NARA's Christmas Gathering on Dec. 5 at the 808 Wing building.

# **NARA's Christmas Gathering**

A reminder that NARA will be holding its Christmas Gathering at the 808 (Thunderbird) Wing on Friday Dec. 5. The time is 6:30 pm for 7 pm. Your invitation and full details have been sent by email.

#### NARA's Annual & General Meeting AGM



Two meetings and a presentation took place at 808 (Thunderbird) Wing on Nov. 12, 2025. Thirty-one members and two visitors attended these meetings. At the Annual General Meeting elections took place for president, treasurer and three directors. The results of the elections, conducted by David VA7DXX as elections officer, were as follows:

**President** – The NARA Bylaws required that Randy VE7FAA step down as president, having served four consecutive two-year terms. Mason VE7PMD had been nominated as president and after three calls for nominations from the floor Mason remained unopposed. Mason Salmon was thus elected president by acclimation for a two-year term.

**Treasurer** – Randy VE7FAA had been nominated for treasurer and Chris VE7TOP had also put his name forward. An election took place by a show of hands, and Randy Harvey VE7FAA was elected treasurer for a two-year term.

Directors – Brandon VE7TZB, Darryl VA7DDU and Greg VE7GGH had been nominated as directors. After three calls for additional nominations from the floor the three nominated directors remained unopposed. Thus Brandon VE7TZB, Darryl VA7DDU and Greg VE7GGH, were elected by acclimation, each for a one-tear term.

NARA's new president, Mason VE7PMD, then chaired his first general meeting, which was followed by a presentation on 'serial port communication' by Johaan VE7IPC.



NARA's busy general and AGM held on Nov. 12 at 808 Wing.

### **NARA Membership Lapel Badges** 22x71mm with magnetic pin \$18 each e-Transfer to:

va7dxx@gmail.com



To reduce costs, delivery of the badges will be at a NARA meeting

#### Membership Cards for 2025-26



Membership cards and certificates are being issued electronically to NARA members for the first time. There has been a desire for some time to provide members with a membership card as an acknowledgement of their subscription payment. While the membership cards are not expensive in themselves, the cost of delivery by mail does start to add up. During 2025 it was decided to deliver the membership cards by hand at NARA meetings and events. Unfortunately not all of the cards were delivered.

For the NARA financial year starting on 1 November 2025, it has been decided to provide all paid up members with a membership card and certificate delivered by email. The cost of providing this service is basically volunteer time which has been a joint project between NARA's president, secretary and the newsletter team. There is essentially no financial cost to producing membership cards and no cost for electronic delivery.

Membership cards have started to be sent out, but if you do not receive your card/certificate by the end of December please contact NARA's secretary at secretary@ve7na.ca. Once received, you can then print the PDF, cut out your membership card along the dotted lines, fold the card in the middle and pop the card into your wallet; it is the same size as a credit card. Receipt of your membership card and certificate is also NARA's acknowledgement that your membership fee has been paid.

#### Ham Happenings 2026 A Date not to Miss

## Ham Happenings

Please mark down in your diary that the 2026 Ham Happenings has been booked by NARA for Saturday Sep. 12. The venue will be the Nanaimo Curling Club. There is plenty of space for this event plus parking, and the canteen will be open for breakfast and a midday meal. Thanks to Linda VE7JLO, Jack VE7GDE and Randy VE7FAA for the booking.



Nanaimo's Curling Club will be the venue for NARA's 2026 Ham Happenings on Sept. 12.

#### VE7NA – Radio Room Update NARA



Radio Room update highlights are as follow:

- Three smart surge bars have been purchased. These allow NARA to turn on and off some of the 120-volt receptacles which give better control and safety.
- Randy VE7FAA donated a surge protector bar which will be installed soon for added protection of the equipment. Recently a suspected power surge, probably from a vehicle • hitting a pole near 808 Wing, blew a 3-amp fuse. winter conditions The added surge protection will be an advantage.
- One more member has signed up to use the remote station. Once the licensing conditions change with a revised RIC-3 in 2026, we hope that more members will sign up for remote operation of VE7NA.

#### **Amateur Radio and** The International Space Station



Amateur Radio was first used on the International Space Station (ISS) on November 13, 2000, when the ISS Expedition 1 crew made the

inaugural ham radio contact using an Ericsson VHF radio. That same year, the first scheduled school contact linked ISS Commander Bill Shepherd KD5GSL with students at Luther Burbank School in Burbank, Illinois. Since then, ARISS has connected an estimated 200,000 students, educators, and enthusiasts each year with astronauts living and working aboard the orbiting space station laboratory. (Thanks ARRL).





Commander Bill Shepherd KD5GSL and the students at the Luther Burbank school pictured in 2000.

#### Winter Field Day - Jan. 24, 2026

Operators and volunteers are needed to join NARA for Winter Field Day on Jan. 24, 2026. Ready to get on the air, sharpen your skills, and give back to the community; all on one winter's day? NARA is looking for:

- Radio Operators from brand new hams to seasoned contesters
- Loggers & Support Crew no experience needed, we will train you
- Setup/Tear-down Helpers antennas, stations, shelters, and more
- Practice amateur radio communications in real
- Experiment with HF, VHF, UHF, digital modes, and portable antennas
- Enjoy food, fellowship, and learning with local hams

When: Saturday, January 24, 2026 Where: 808 Wing - 719 Nanaimo Lakes Road Who: All licensed amateurs and interested volunteers, plus families are welcome!

Be a part of the NARA Winter Field Day team.

To volunteer or reserve an operating slot contact Greg VE7GGH at wfd@ve7na.ca.



Please join NARA for Winter Field Day on Jan. 24 at 808 Wing.

#### A New Radio Tower in Nanaimo

A new tower is being erected in Nanaimo in the Hammond Bay Road area. The new tower will be 63 metres (206 ft) high. Now any radio amateur would be delighted with such a tower, but on this occasion this is a cellular communications tower being put up by TELUS.



The new TELUS tower. Thanks Mike VA7WPM for the picture.

Cellular service in parts of the Hammond Bay Road area has always been a bit spotty, as has been amateur radio repeater coverage in the same area. This new tower will solve the cellular issues and is there a possibility that NARA could use the same site for some amateur radio equipment? We shall see!

#### Nanaimo Repeater VE7VDX



The perhaps little known FM repeater, VE7VDX, is located in north Nanaimo and transmits on 440.175 MHz. The repeater receives on 445.175 MHz and is coordinated by BCARCC. This is a linked repeater as part of the Allstar BC/Canada hubs. The main net on this repeater is at 10 am (Pacific) every Sunday morning. The repeater provides coverage in Nanaimo, Lantzville and the Sunshine coast. It is sponsored by the North Fraser Amateur Radio Club and is located at the home of Chris VE7TOP.

#### **New Canadian Weather Alert System**

On Nov. 26, 2025, the Government of Canada announced a new weather alert system for Canadians. The press release reads as follows: Canadians rely on timely weather information to plan their day and protect themselves during severe conditions. Environment and Climate Change Canada delivers this vital service, issuing weather alerts around the clock to help people stay informed and safe when it matters most.

Today, Environment and Climate Change Canada announced an important update to its national weather alert program, designed to make weather information clearer for Canadians. A new colourcoded system will make it easier to quickly understand the severity of extreme weather and its expected risk at a glance. This new system is part of the ongoing modernization of our public weather program and aligns with best practices worldwide, including those promoted by the World Meteorological Organization.

Each type of weather alert—Warnings, Advisories, and Watches—now includes a colour, ranging from yellow, to orange, to red to show the seriousness of the weather event:

- Yellow alerts are the most common. They are issued when hazardous weather may cause damage, disruption, or health impacts. Impacts are likely moderate, localized, and/or short-term.
- Orange alerts are less common. They are issued when severe weather is likely to cause significant damage, disruption, or health impacts. Impacts can be major, widespread, and/or may last a few days.

**Red alerts** are rare. They are issued when very dangerous and possibly life-threatening weather will cause extreme damage and disruption. Impacts have the potential to be extensive, widespread, and prolonged.

To provide impact-based alerts, Environment and Climate Change Canada meteorologists will use a new Alert Colour Matrix. They will combine the latest atmospheric data—weather models, real-time observations, and forecast confidence—with new Impact Guides that will help them describe the impact the weather event will have on people, property, and communities.

For the latest forecasts and severe weather alerts, Canadians can visit Canada.ca/Weather or download the WeatherCAN mobile app, which is available for free for Android and iOS devices.

As Canada's official source for weather forecasts and alerts, Environment and Climate Change Canada is modernizing the public weather program to better serve Canadians. Over the next year, the Department will launch a series of initiatives to improve severe weather alerts, add more context to daily forecasts and expected impacts, and extend the outlook for possible extreme weather, ensuring Canadians have the most accurate weather information when they need it most.

#### **NARA Clothing**



Although there is no absolute fixed date for the next NARA clothing order, you should aim to get your requests in, say, no later that the end of March 2026. Lanaya VE7NAY looks after the NARA clothing orders, and you can contact her at ve7nay@outlook.com. For prices and clothing items go to https://ve7na.ca/member-purchases/.



#### **Congratulations to VA7NNI**



Congratulations to Annika VA7NNI, 11 years old, for passing her 5 words/minute Morse test in early November. It is almost two years since Annika passed her Basic exam at age 9, certainly one of the youngest to pass these certification exams in Canada. The NARA examiner was David VA7DXX.



Annika practicing her CW sending prior to her Morse test.

#### **Meshtastic News**



NARA has several new Meshtastic nodes on test around Nanaimo

- Devan VE7LSE and Mike VA7MLZ have started to test MeshCore, which is also a multi platform system enabling text based off-grid communication utilizing the LoRa hardware. MeshCore has introduced an entirely new direction of testing out some dual nodes for both Meshtastic and MeshCore
- Kevin VE7KGV is trying out an 8 by 8-inch test box with two nodes, one for MeshCore and one for Meshtastic. NARA's hope is that down the road we can set up dual nodes and serve two different communities inside one box.
- Some recent activity has involved a change to medium slow, slot number 52 on Meshtastic to get away from some of the congestion from down south and the lower mainland. Since the change there has been a stronger mesh but with a slightly less range. However, things are working well with messages going through.

Thank you, Mason VE7PMD, for the update.

#### How is DX – David VA7DXX



It is now only eight weeks before the members of the Bouvet Island 3YOK DXpedition set sail from Cape Town. Cezar VE3LYC will be the only Canadian amateur on the Bouvet team. Cezar is an intrepid Islands on the Air DXpedition operator and during 2025 I have worked Cezar from at least 4 islands, from the Pacific to Chile and India. Cezar certainly gets around.

There has been more progress with the Bouvet DXpedition. Six additional team members have recently been added to the 3YOK team, all of which have experience with medical, safety, evacuation, and emergency situations. These additional team members are all about safety including the analysis of weather forecasts and preparation for really bad weather. The main team doctor is a specialist in emergency physician medicine from the USA. He is supported by Julia who is currently the doctor in charge at the Neymar III base in Antarctica. There is a third doctor from Switzerland, Thomas HB9FKF. The 3YOK team is still looking for donations via donate@3y0k.com.

I was very pleased to receive a QSL card from the January 2025 DXpedition, SV1GA/A, to Mount Athos. The location of the Monastery of Vatopedi is marked on the QSL card. This DXpedition gave me contacts on three new bands for the very rare DXCC entity of Mount Athos, Greece. This DXpedition commemorated the 50<sup>th</sup> anniversary of the very first amateur radio activation of Mount Athos in 1975. Well-known DXpedition activator Marti OH2BH took part in both the 1975 and 2025 DXpeditions.



During November a number of DXpeditions hit the airways in style. My favorite contacts during November were 5V7RU (Togo), ZL7/LZ1GC (Chatham Islands), Z81D (South Sudan), 5R8XX (Madagascar), 9U1RU (Burundi), 9L9L and 9L8MD (Sierra Leone), TL8GD (Central African Republic), V51PJ (Namibia) and VP2MAA (Montserrat). Some of the pictures and logos from these stations are reproduced below.





















During the month of December you may hear many callsigns using the suffix YOTA. YOTA stands for 'Youth On The Air' and the idea is to show young people the hobby/service of Amateur Radio. 'Let us all show Amateur Radio to the world' is a byline of this initiative. Some of the stations that you might hear on the air include: 3Z0YOTA (Poland), HA6YOTA and HG0YOTA (Hungary), K8A, K8O, K8T and K8Y, (USA), LT4YOTA (Argentina), OQ25YOTA, PD6YOTA and PA6YOTA (Belgium), SU8YOTA (Egypt) and YLOYOTA (Latvia). I am sure there are many others as well. We all want to see the marvelous hobby/service continue and so any encouragement we can give to young people is really important.

Dxpeditions to look out for during December include Maldives (8Q7HT), Guatemala (TG), Palau (T88AC), Surinam (PZ5OZ), Azerbaijan (4K), Mariana Is. (KHO) and Monaco (3A).

Although I have worked the Principality of Monaco and visited it a number of times, I shall be looking out for this short DXpedition which plans to be on the air from the Monte Carlo district from Dec. 30 to Jan. 3. The two callsigns in use will be 3A/MM0NDX (Col) and 3A/MM0SAJ (Steve). Monaco is a small sovereign state, of some 2.084 sq kilometers, situated on the French Riviera between France and Italy on the north coast of the Mediterranean Sea. Monaco is often described as a concrete jungle and has been made famous by its royal family and its casino.

#### Woss ITS Update



Members of the North Island Amateur Radio Society visited the new Woss ITS site in early November to continue work. The NIARS crew were strapping down the new building and working on some interference issues at the old site. Work to move the radio equipment from the old Woss site to the new site will continue next spring.



Snow at the new Woss ITS site in November.

#### NARA's NVIS Tests in December



NARA's next scheduled NVIS tests on the 60m band take place on Sunday Dec. 21. Full details of these NVIS tests are available from nvis@ve7na.ca. The essential information is:

Date: Dec. 21

Times: 11:30 am - 2:30 pm (Pacific)

Callsign: VE7NA Mode: USB

Frequency: 5.346.5 (dial frequency)

VE7NA will monitor the ITS and the BC1 DMR talk

group for feedback or requests for tests.

# What is DisasterNet BC?



There are a number of amateur radio emergency groups on Vancouver Island and over the rest of British Columbia. Each of the groups is normally associated with a major town or city. For example (there are others), Victoria, Nanaimo, Parksville, Port Alberni and Comox on Vancouver Island.

Thus, larger communities are already well served by existing, well organized radio networks. However, the more isolated communities in BC, including indigenous groups, typically do not have communication backup in the event of a major disaster. For such communities, DistasterNet BC (DNBC) will provide a last ditch means of communication even when other communications systems fail or get overloaded. This is where DNBC comes into its own.

A group consisting of certified amateur radio operators, with long experience in serving local government emergency programs, have formed a society. It will help provide special radio equipment to some of the smaller and isolated communities around BC where assistance from radio amateurs is not available. The main equipment consists of a Barrett HF radio and an associated wideband antenna, plus a Pactor Modem which will use Winlink protocols. It is expected that finance for these stations will be available through grants. Both voice and data will be available to groups that join the organization and get commercial licenses from ISED. DNBC have seven HF commercial frequencies available.

Although DNBC is in a 'work-in-progress' mode at present, two initial stations have been set up and are in a testing phase. These are at Comox and Prince George.

The idea of DNBC is well thought out to serve the smaller isolated communities around BC. More information on the DisasterNet project will follow when available.



The Barrett radio transceiver which DisasterNet groups will use for last-ditch communication.

## 808 (Thunderbird) Wing Events 🧆



- There will be no 808 (Thunderbird) Wing pancake breakfast during December. The next 808 Wing breakfast is on Sunday Jan. 18 at 9 am. There is always a contingent of NARA members attending so come along and join the amateur radio group discussion.
- NARA Members are invited to 808 (Thunderbird) Wing's festive afternoon of good food, fun games, and holiday cheer!

Date: Dec. 13

Time: 11:30 am – 3:30 pm

### **NARA's DMR Repeater Move**



The NARA DMR repeater, VA7DXH, is now fully operational from Ladysmith. The repeater transmits on 440.825 MHz and receives on 445.825 MHz. A properly tuned duplexer has now been installed, and the antenna is a 5 element Yagi pointing into Nanaimo. It is hoped that the omnidirectional antenna can be installed soon. The most popular

DMR talk-group in use is BC1, with stations from all over BC and Alberta being heard.

Location	BCARCC	BC TRBO	Rptr Book Rpt TX	
Victoria	VE7BEL	VE7BEL		440.5
Victoria	VA7MVO			440.2
Ladysmith	VA7DXH	VA7DXH	VA7DXH	440.825
Victoria	VE7VIC	VE7VIC		145.55
Pt Alberni	VE7CIM	VE7CIM	VE7CIM	444.25
Parksbville	VE7MIR		VE7MIR	444.2
Mt Washington		VE7PZU	VE7PZU	145.53
Comox		VE7RAP	VE7RAP	444.5
Victoria		VE7VIC		443.95

DMR Repeaters on VI which can all be linked via talk groups.

Contact dmr@ve7na.ca if you have any DMR related questions.

#### **NARA's In-Person Meetings**





- Dec. 5 Christmas Gathering
- There is no NARA general meeting during December

#### **Auroral News**



On the evening of Nov. 11 there was a significant aurora. Unfortunately, cloud cover prevented any observations in the Nanaimo area. The auroras spread across Canada and the USA as far south as El Salvador during this severe geomagnetic storm. The auroral lights were seen in at least 45 US states.

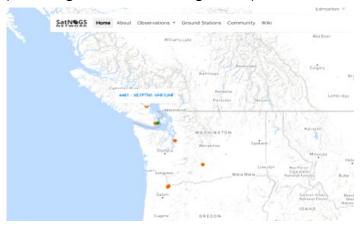
In addition, an even more spectacular auroral event which lasted even longer than the previous day, took place during the evening of Nov. 12.

# The Satellite Downlink: Hosting a SatNOGS Ground Station – Part 2 Bruce VE7PTN



Last month I started a series of articles to be about my experience with hosting a receive-only SatNOGS (Satellite Networked Open Ground Station) satellite telemetry ground station. As explained on the SatNOGS website (https://satnogs.org), "it's a network of satellite ground stations focused on observing and receiving the signal of satellites, particularly low earth orbit (LEO) cubesats." My plan for November was to get the station components setup and functioning in a bench test configuration. I was successful in achieving this goal, but not without some challenges.

For my initial SatNOGS station I started with a basic setup using a discone antenna following the instructions at: https://wiki.satnogs.org/ Omnidirectional Station How To. As I proceeded through the steps on this webpage, I soon discovered that the instructions were old and referenced setup steps that were no longer correct. I did find more current information on the Raspberry Pi setup page: https://wiki.satnogs.org/Raspberry Pi and the SatNOGS client software setup page: https:// wiki.satnogs.org/SatNOGS Setup. By consulting all three pages I was able to get my Raspberry Pi setup, the client software configured and my SatNOGS Network account created with my ground station defined. My station was assigned SatNOGS ID 4461 and now appears on the network map as a yellow dot (indicating that it is in "Testing" mode).



The SatNOGS network map from their website (https://network.satnogs.org) and showing Bruce VE7PTN's new station with SatNOGS ID 4461.

My next step was to try scheduling an observation with the discone antenna. Observations are scheduled by logging on to the SatNOGS Network website and going to your station dashboard. The dashboard includes a feature called "Future Passes" where I could see a list of upcoming satellite passes for my location and then select one to "observe". For my first attempt I selected the satellite METEOR M-2, a Russian weather satellite launched in 2014. I chose this one because it had a good pass for my location and seemed to have a high success rate for attempted observations by others. I scheduled the observation and waited for it to complete and then used the SatNOGS Network dashboard to review my results. The observation did complete OK, but no signal was present in the uploaded data from my station.

In reviewing my setup to see what the issue might be, I discovered that I had missed a step in the client software setup to establish the receiver gain for the Software Defined Radio (SDR) dongle. The default setting in the client software is zero but the recommended value is 32.8 when no preamp is installed. So, I set the receiver gain to 32.8 and scheduled another observation, this time selecting satellite POLYITAN-1, a Ukrainian Ham radio cube satellite. Again, the observation completed but with no satellite signal detected. However, this time I could see some terrestrial noise in the waterfall (a vertical line that curves as the receive frequency is adjusted for Doppler) so at least the radio was hearing something! Now to be fair, my discone antenna setup is far from ideal for satellite work. Not only is the antenna low gain with no amplifier, I was also using a questionable coax cable that I purchased as an experiment on Amazon. Whenever I build a project, I tend to over-engineer. So, with this project I intentionally avoided this habit and went for an under -engineered approach to see what I could get away with. Well, I guess I overdid the under-engineering. It was also possible that the satellite was not transmitting at the time, something that is common for small satellites.

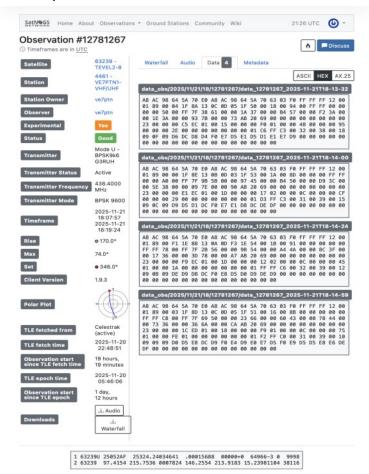
For my next test, I decided to connect the SDR to my main satellite antenna, my M<sup>2</sup> LEO Pack. I know this antenna and coax works well as I use it often for voice QSOs. This antenna is of course highly directional due

to its crossed-Yagi design. So, for a good test I would need to point the antenna at the satellite as it passed. mounted. Unfortunately, the sparse rotator I hadn't yet configured the SatNOGS client software to control a rotator because I planned to use it with an omnidirectional antenna. To control the antenna orientation, I used my standard approach for satellite work, my laptop and MacDoppler software. I selected the satellite TEVEL2-8 for the observation in my SatNOGS Network dashboard and for tracking in MacDoppler. Within minutes of the pass completing, my SatNOGS station uploaded the waterfall and demodulated data to the network. Success! I had received a signal and contributed four "frames" of telemetry data to the SatNOGS network.

21:23 UTC 🔘 -SatNeGS Home About Observations \* Ground Stations Community Wiki Observation #12781267 **♦** □ Discuss Waterfall Audio Data 4 63239 -TEVEL2-8 Signal in WF Unkn 4461 -VE7PTN1-VHF/UHF vn ① × × ve7ptn ve7ntn Active 436.4000 MHz BPSK 9600 2025-11-21 18:07:57 2025-11-21 18:19:24 o 170.0° 74.0 • 346.0° 1.9.3 Celestrak (active) 2025-11-2 TLE epoch time 1 63239U 25052AF 25324.24034641 .00015688 00000+0 64966-3 0 9998 2 63239 97.4154 215.7536 0007824 146.2554 213.9183 15.23981104 38116

The uploaded waterfall from the successful satellite TEVEL2-8 observation conducted by Bruce VE7PTN using a crossed-Yagi antenna. The telemetry signal can be seen as faint horizontal lines near the midpoint of the waterfall.

Now that I had some success with my station, I decided to try setting up the SatNOG client on my Raspberry Pi to also control the azimuth/elevation rotator on which my M<sup>2</sup> LEO Pack antenna is instructions on the SatNOGS website combined with my limited knowledge of Raspberry Pi operation meant that I have not yet been able to get the SatNOGS client talking to my AlfaSpid rotator controller. I have tried a few different things, and I am probably getting closer, but no success yet. By reviewing the log file, I can see that the SatNOGS client creates, for every pass, a connection to the rotator controller, but the connection fails. I can also see that the USB device is seen by the Raspberry Pi. So, the problem is likely some connection setting in the client or driver software configuration. There is a SatNOGS community forum where I can reach out to for help; that will be a next step if I can't figure things out myself.



The four demodulated data frames from the successful satellite TEVEL2-8 observation conducted by Bruce VE7PTN using a crossed-Yagi antenna. The demodulated telemetry dată is transmitted as a two-digit hexadecimal value. Further interpretation is required to extract the meaningful information from the data frames. Note that the beginning of each frame is the same; this is the AX.25 header information that identifies the source and destination callsigns.



The Raspberry PI and SDR used by Bruce VE7PTN for his SatNOGS station in a bench test configuration. An issue with this setup is that the USB connection between the SDR and Pi is easily disrupted due to small movements when switching antenna connections. Whenever the connection is disrupted the SatNOGS client software must be restarted by rebooting the Raspberry Pi. A short USB extension cable inserted between the SDR and Pi should help reduce this.

I am a bit discouraged with the project at this point. I am not ready to move beyond the testing phase and make my station fully operational. For that I would need to improve my omnidirectional antenna setup, perhaps building a turnstile antenna, and include a Low Noise Amplifier (LNA) as recommended by SatNOGS. I will also keep trying with the rotator connection. So please stay tuned for next month's article to see how I am progressing.

That's all for this month, 73.

NARA's Website:

# https://ve7na.ca

The volunteer group of NARA members producing this newsletter wish you season's greetings and thank all those that provided material for this month's issue.

The deadline for the January 2026 issue of the NARA Newsletter is noon on Sunday Dec. 28 with an intended publication date of Wednesday Dec. 31.

News items, comments or articles for publication should be emailed to:

news@ve7na.ca

# NARA Recognized by RAC \*\*RAC\*\*



NARA's NVIS (Near Vertical Incident Skywave) tests have attracted the attention of RAC's (Radio Amateurs of Canada) Regulatory Affairs Officer, Dave Goodwin VE3KG.

Dave emailed NARA in November suggesting that NARA prepare an article for RAC's magazine The Canadian Amateur (TCA). The article is in hand and will include additional information gained from NARA's Dec. 21 NVIS propagation tests. Dave complimented NARA on these tests and indicated that he wanted to initiate some similar NVIS tests in Ontario; praise indeed.



Dave VE3KG has a regular column in RAC's bi-monthly magazine TCA which is always full of fascinating information on the work being done by RAC to maintain liaison with Innovation, Science and Economic Development (ISED).

# In case you missed it ...

# A NARA's Christmas Gathering



Bring something to eat and share