The May 2024

NARA Newsletter

President's Message – Randy VE7FAA

It's May already, which means that Field Day is just around the corner. ARRL Field Day this year is the weekend of June 22-23, and NARA is once again setting up at Sunnus farm in Yellow Point. NARA members made over 1,000 Field Day contacts last year; and though contacts are just one component of Field Day, I wonder if we could perhaps improve over 2023. Of course, Field Day is not a contest and making lots of contacts is not the only reason amateurs participate. It is also about setting up stations in novel locations, running them on alternate power sources, testing capacity, learning while operating in challenging circumstances, and interacting with other like-minded radio amateurs, friends and family. Field Day is also NARA's biggest social event, so I hope to see you there. There will be a NARA pot-luck supper, organized by Linda VE7JLO, on site on Saturday evening at 6 pm.

NARA remains a very active radio club and just to illustrate the point just look at some events taking place in May. In a few days time, on May 3, AREDN specialist Orville W6BI from California will give a talk about the AREDN mesh network at the Nanaimo Air Cadets building. Also, you may be aware that some 20 members have signed up to take NARA's new CW course. The course will commence this month with a kick-off meeting on Saturday, May 11, again at the Nanaimo Cadets building, with more details in this newsletter. NARA also plans to hold some fox hunts this summer, and the club has just formed a group dedicated to APRS operation. We hope that at least one of these activities will work for you, but of course you are welcome to join in everything.

Finally, NARA has received some initial feedback from RAC regarding our concerns about remote station operation. Further details are in this newsletter.

AREDN Advocate – May 3

One of the prime movers of AREDN in California, Orville (Orv) Beach W6BI, will give a talk to NARA members and visitors on Friday, May 3, starting at 7 pm. The venue is the Nanaimo Air Cadets building at 719 Nanaimo Lakes Road. Orv is also vacationing on Vancouver Island.

Orv W6BI working on an AREDN installation

Island Events	Date	By
AREDN Talk by Orville W6BI	May 3	NARA
NARA CW course kick off meeting at 4 pm	May 11	NARA
VELO Unpaved bike race	*Jun. 16*	*MIVA*
Field Day – ARRL at Sunnus Farm	Jun. 22-23	NARA
Field Day pot-luck dinner at Sunnus Farm, 6 pm	Jun. 22	NARA
Canada Day Contest at VA7DXX's cabin	June 30 - July 1	NARA
NARA Picnic	July TBA	NARA
Nanaimo Bathtub Race	July 26	NARA
NIARS Campout	*Aug 15-20*	*NIARS*
CVARS Flea Market	*Sep. 8*	*CVARS*
Canada Winter Contest	Dec. 28	NARA

BC Emergency Preparedness Week

BC Emergency Preparedness Week runs from May 5 to 11. The theme this year is "Using Technology before, during and after emergencies." Computer technology is now used in many ways for emergency communications, for example:

- satellites that forecast the weather
- maps showing real-time wildfire information
- infrastructure that prevents flooding
- broadcast intrusive emergency alerts

And of course the original RF technology of amateur radio.

Full information on BC's Emergency Preparedness week can be found at https://www2.gov.bc.ca/gov/content/safety/emergency-management/education-programs-toolkits/ep-week

Remote Station Operation in Canada

Those hoping to operate NARA's new remote station, but who lack the required Advanced certification to do so, may want to be prepared to wait a while before seeing any changes.

Radio Amateurs of Canada, now in receipt of the NARA's letter on this issue, must delve into the regulatory details, follow necessary administrative procedures, consider how best to move forward, have discussions among themselves and with ISED, and then bring any initiatives back to ISED to approve any regulatory changes. Just the last step could take longer than any of us would like.

To briefly recap, NARA has asked RAC to review current regulations on remote operation in order to ask ISED to implement changes so that anyone with HF privileges can operate a remote station, not just those with Advanced certification, as current regulations stipulate.

Be assured RAC is taking a serious look at this given it is an emerging issue for clubs all over Canada. Not only are more clubs coming to see current regulations as a hindrance to the growth of remote operation as it becomes easier and more widespread, but questions are also increasing about how overall amateur radio regulations may need to be updated to better reflect how computer technology informs more and more aspects of the Amateur Radio Service in Canada.

This is one example of why RAC needs our support. Thanks to all the hard working people at RAC who examine these issues and much else that keeps amateur radio alive and thriving in Canada.

Bike Race - June 16

NARA is seeking members to help provide amateur radio safety backup communications for the Mid Island VELO Association Nanaimo Unpaved Gravel Fondo bike race in June. The race takes place Sunday June 16 and will be centred around the lower slopes of Mount Benson on forestry roads. Radio teams will be required at various points along the three courses, ranging from 120 to 40 kilometres. Set up time will be around 8 am and the event will end at 3 pm.

If you have not been involved with this race previously then NARA will team you up with another member who has worked at this race in past years. Taking part in this race is fun and a great learning experience for portable operations. Full information will be provided to all volunteers prior to the race together with team allocations.
If you are available to volunteer for this all-day event on Sunday June 16, please contact Mike VA7WPM at velo@ve7na.ca.

MFJ Ends Manufacturing

There can't be many amateur radio shacks that don't have at least one piece of equipment with the name MFJ printed on it.

Sadly, MFJ Enterprises announced on April 24 that after 52 years they would close their manufacturing facilities in Starkville, Miss., effective May 17. MFJ will, however, continue selling their wide selection of imported products, including portable and mobile antennas, power supplies, clocks, and antenna switches. This closure also impacts all of their sub-brands: Ameritron, Hy-Gain, Cushcraft, Mirage and Vectronics. MFJ intends to continue to service and warranty these product lines for the foreseeable future. GigaParts customers can still bring their warranty claims to MFJ, or alternatively to GigaParts. Note this does not say that MFJ is 'closing the doors', ending all business activity and dissolving the brand. The possibility that manufacturing

may be done elsewhere remains open.

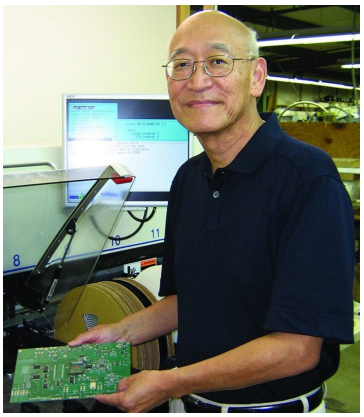
This is the announcement from Martin K5FLU.

Dear Fellow Hams and Friends,
It is with a sad heart as I write this letter. As many of you have heard by now, MFJ is ceasing its on-site production in Starkville, Mississippi on May 17, 2024. This is also the same for our sister companies: Ameritron, Hygain, Cushcraft, Mirage and Vectronics. Times have changed since I started this business 52 years ago. Our product line grew and grew and prospered. Covid changed everything in businesses including ours. It was the hardest hit that we have ever had, and we never fully recovered.

I turned 80 this year. I had never really considered retirement, but life is so short and my time with my family is so precious. I want to thank all of our employees who have helped build this company with me over the years. We have many employees who have made MFJ their career for 10, 20, 30, 40 and more years. We are going to continue to sell MFJ products past May 17, 2024. We have a lot of stock on hand. We will continue to offer repair service work for out-of-warranty and in-warranty units for the foreseeable future.
Finally, a special thanks to all of our customers and our dealers who have made MFJ a worldwide name and a profitable business for so many years. You all are so much appreciated.

Sincerely Yours, 73 Martin F. Jue, K5FLU

MFJ had been trying to sell the entire operation, including their manufacturing facilities and premises, but seemingly there were no takers. Those in the amateur radio industry do expect that certain parts of the MFJ product line will be taken over.

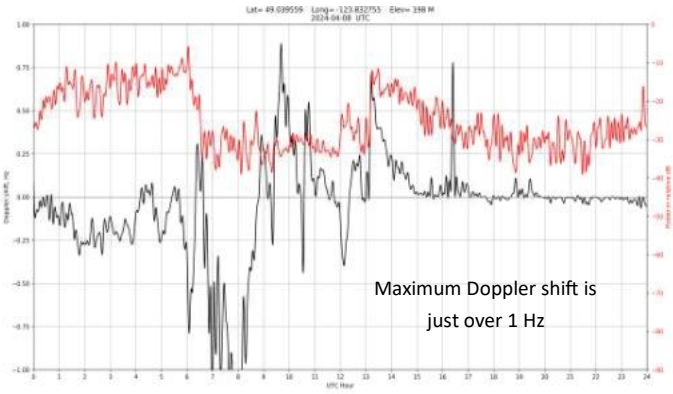


MFJ products have been an integral part of amateur radio and Martin K5FLU's retirement really is a sad day for amateur radio.

NARA's website is http://www.ve7na.ca/

Total Solar Eclipse - April 8

The University of Scranton in Pennsylvania reports receiving excellent data from its amateur radio observers during the solar eclipse which took place on April 8. Good data was received from all of the active amateur radio observers in the US — and one from Canada. The Scranton propagation team say that they are excited about the data received. David VA7DXX near Ladysmith is the lone HamSCI observer for Scranton University in Canada and his Doppler shift/ signal strength graph for April 8 is shown below.



VA7DXX's signal strength (red) and doppler shift (black) readings for WWV on 10 MHz on April 8. Scranton University analyze the data from their amateur radio observers and based on the Doppler shift measurements from different locations can calculate how the ionosphere is moving around

Initial results from Scranton University are reported via HamSCI as follows: *The April 8, 2024 HamSCI Total Solar Eclipse QSO Party (SEQP) first results are in! Over 52.7 million radio communications were observed over the continental United States using the PSKReporter, WSPRNet, and Reverse Beacon Network networks.*

Eclipse effects were observed between 18 to 21 UTC, particularly on the 1.8, 3.5, and 7 MHz bands. These bands all showed enhancement in propagation resulting from the eclipse, suggestive of a reduction in D region absorption. The 14, 21, and 28 MHz bands also showed hints of eclipse impacts.

A reduction in communications observed at near-ranges during the eclipse likely results from a reduction in ionospheric electron densities during this time. More analysis to be done in the future!

How is DX – David VA7DXX

The big DX news for May is that starting on May 24 FT4GL will be operational from Glorioso Island in the Indian ocean. This is a rare DX location by any standard and ranked No. 7 on the worldwide Most Wanted list. From the west coast of North America it is ranked No. 2. Glorioso Island is one of the two countries that I have not yet worked so I will certainly be looking out for this one! FT4GL, operated by Marek FH4VVK, will be operational on SSB and FT8 until June 19. Unfortunately, no CW operation is planned. The short path heading for Glorioso Island is 011 degrees, a tricky path to the north.

Glorioso Island is located off the NW coast of Madagascar

On May 2 to 17 another rare country, Rwanda, will be on the air. Harold DF2WO will be operating as 9X2AW from Kigali, the capital of Rwanda, using CW, SSB and FT8/4. He will be using 100 Watts to a multiband antenna.

NL7RR/KH8 (Wake Island) has been operational and will continue until May 15, another rare DX location.

In summary, expect the following DXpeditions to be active during May: Rwanda (9X2AW), Bolivia (CP7DX), Barbados (8P9CB), Maldives (8Q7KR), and Glorioso Island (FT4GL).

More news on the Jarvis Island DXpedition which will take place in August. Because Jarvis Island is a nature reserve, special operating arrangements were agreed with the US Fish & Wildlife Service. As mentioned last month, the N5J operation will use the RIB (Radio in a Box) system because it reduces the impact of human presence on the island. The five local operators will instead be aboard a boat just offshore, the *MV Magnet,* operating the RIBs remotely using a 900 MHz link. Typically the power generators for the RIBs only need to be refueled once a day, again minimizing human contact on the island nature reserve.

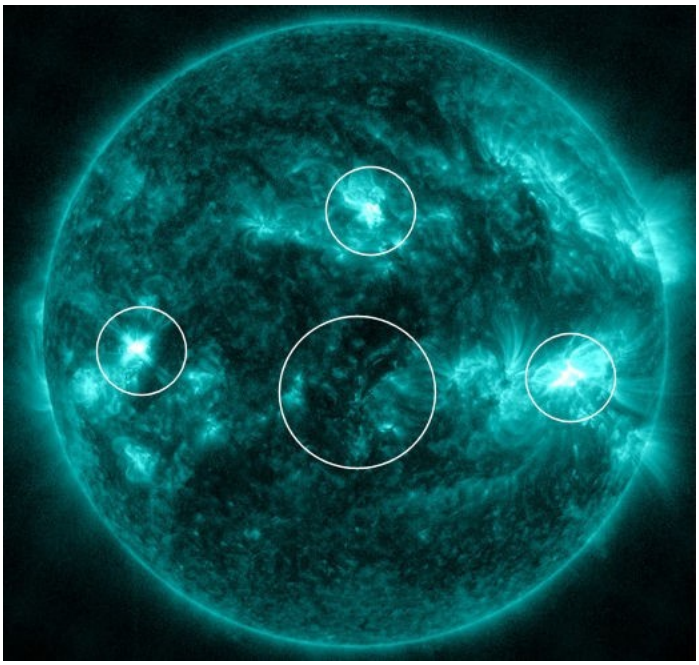
In addition to the five remote operators aboard the *MV Magnet*, there will be 24 other operators linked in via satellite to operate the stations. While DXCC will allow DXCC credit for all operators, local and remote, the IOTA and POTA programs will recognize for credit contacts only with the five local operators; the local operators are: AA7JV, HA7RY, N1DG, KO8SCA and KN4EEI. Daily log updates will identify the operators. At the start of each operating session the operator will advise the DX Cluster system of the operator involved. There has also been a suggestion that if one of the local operators is operating, then they will include the first letter of their name after they send their signal report to you. So if you are working for IOTA or POTA awards you will need to check which operator is on duty!

Under the heading of 'oh whatever next?' it's likely that not many people have heard of the 'Shag Rocks'. I have heard of them myself because some DXpeditions to southern Atlantic locations have reported passing these rocks. Shag Rocks are located some 270 kilometers WNW of the South Georgia and South Sandwich Islands in the southern Atlantic. Never did I think that they might actually be activated on the radio. As you can imagine from the picture below these rocks are uninhabited. So there is talk of activating these rocks/islands in the summer of 2025, and the talks include using heavy-lift drones to get the equipment onto these remote islands. We'll have more of this as the talk continues, but for Islands On The Air enthusiasts this really does seem an interesting project. Shag Rocks are designated AN-021 in the IOTA program.

Shag Rocks in the southern Atlantic with the red arrow indicating the proposed operating position.

Finally, on the morning of April 24 the sun produced four

flares in quick succession — an almost simultaneous cascade spanning hundreds of thousands of kilometres across the sun. The quadruple explosion is an extreme example of a phenomenon called "sympathetic solar flares."



Four almost simultaneous solar flares on April 24

Field Day – Pot-Luck Dinner

ARRL Field Day takes place June 22-23. This is a really popular event for NARA and more details will be sent to members by email and via the NARA Newsletter in early June.

NARA will hold a Field Day pot-luck dinner at 6 pm on the Saturday, June 22. All members are encouraged to bring something to share. However, to cover the main items there will be a $5 charge from NARA.

IMPORTANT: If you intend to bring something to share or plan to attend the pot-luck Field Day dinner, please contact Linda VE7JLO at ve7jlo@gmail.com.

NARA APRS

NARA has recently formed an APRS group to oversee Amateur Packet Reporting System activity in the area. The group held an initial meeting in April and one of its first tasks will be to set up an APRS digipeater on Mount Benson. Group members include VA7DXX, VE7FAA, VE7LSE and VE7PMD. If you have an interest in APRS and want to join the group please email aprs@ve7na.ca.

Tech Talks Coordinator

NARA is looking for a Tech Talk coordinator for technical talks which the club puts on from time to time. If you are interested in this position, please contact the NARA executive secretary at secretary@ve7na.ca.

NARA Training Group For New Amateurs

The NARA training group has an information document aimed at assisting newly licensed amateurs that covers a wide range of topics. Not everything in this document may necessarily be of interest to every reader, but there is certainly something for any newly licensed amateur. To obtain a copy please email training@ve7na.ca.

NARA's New VE7NA Club Station

VE7NA, NARA's new club station at the Nanaimo Air Cadet building, is up and running for local operation, but there is still some work to be done in writing documentation on how to operate the Flex radio.

There is a small team working with Mason VE7PMD. The plan is to have the Flex radio documentation available to interested members and to provide some training sessions. NARA's previous VE7NA station in Departure Bay was damaged by fire in March 2022, though all radio equipment was salvaged. The building was subsequently torn down.

The completed rack mounted equipment and power distribution system at NARA's new station, VE7NA

Teachers Wanted – VE7KW

This is from Keith VE7KW, RAC's BC and Yukon Region Director:

'RAC is working towards having Amateur Radio Basic and Advanced credentials accepted for External Credits by the BC Ministry of Education and Childcare, External Credits Program. RAC has already accomplished this in Nova Scotia and is looking into other provinces and territories. Of course, there are differences in the requirements for each jurisdiction, but the criteria have common elements.

'As part of the application process, we need one or two BC Educators with a current valid BC Ministry of Education and Childcare Certificate of Qualification in good standing with the Teacher Regulation Branch. They must be a current Grade 11/12 educator in a BC certified school. They do not have to be a Radio Amateur. They would review our application and perhaps offer some suggestions.'

If you are aware of anyone who meets these qualifications, please contact Keith at dir.bc.yukon@rac.ca.

Comox 2024 Ham Swap & Flea Market

Vancouver Island's first radio swap meet of the year on April 21 was well attended, with over 130 through the door, an increase over last year. Those who did not buy anything still had a great time meeting up with other hams. Thanks to the Comox crew for a well run and fun event.

The Comox Swap and Flea Market on April 21

Learning Morse Code – May 11

Some 20 NARA members have signed up to join the upcoming NARA CW training sessions. Those who have signed up have already been sent some documentation.

There will be a course kick-off meeting on May 11 at 4 pm. The venue will be the Nanaimo Air Cadets building at 719 Nanaimo Lakes Road. This session will run through how the training will work with short once-weekly on-air sessions, backed up by online audio files which can be used for practice.

NARA wants to run the weekly on-air sessions via a local repeater for good coverage. The technical side has for the most part been resolved but needs to be finalized.

.-.-.

training@ve7na.ca

NARA Fox Hunts

NARA intends to hold fox hunts from May through August this year. Watch your email and the NARA Newsletter for further details.

Balloon Tracker Project

Although some initial work has been done on this, NARA will table this project until 2025. The club is still seeking someone to spearhead this project.

The Satellite Downlink: Working Czech DXpedition from Liberia via Satellite (or, The Value of Trying Something Different)

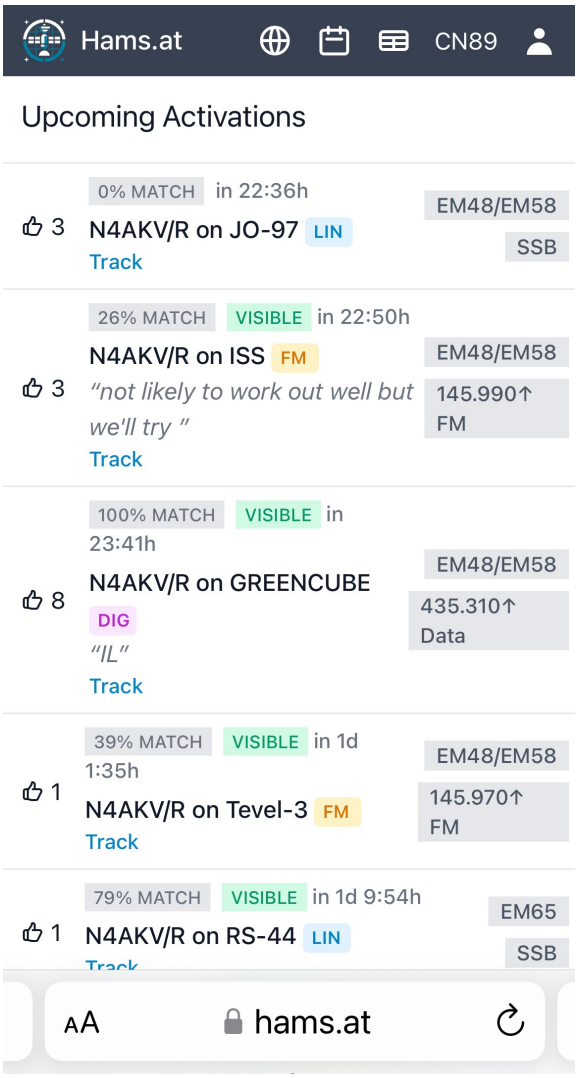
Bruce VE7PTN

Last month I started a series on a portable satellite antenna system that I am building. Sadly, I have not made much progress on that project yet. So, the next article in that series will need to wait. I have received the antenna clamps and patch cables that I ordered from Arrow Antennas but have yet to test them. Note that if you order items from Arrow Antennas directly, and not through a reseller, you will need to have some patience. They do not ship orders until at least two weeks after the order is placed, sometimes longer. They mention this on their website; but the first time I ordered from them, the delay was longer than I expected, and I wondered if I had been ripped-off. Eventually the items arrived and all was good.

With the help of the Greencube satellite and its massive footprint, I am making good progress on my Satellite DXCC. I am currently at 63 entities confirmed in Logbook of the World. When I saw notice on X (formerly Twitter) that the Czech DXpedition team (call sign A8OK, website https://www.cdxp.cz) would be heading to Liberia and operating Greencube, I hoped that I would have a chance to add my first African entity to my Satellite DXCC tally. But I did not expect it to be a slam-dunk. The DXpedition is mainly an HF operation and only one operator on the team, Ludek (OK2ZC) would be working satellites. Even for Greencube, the range to Liberia is at the limit of the footprint from Nanaimo with only about 10 minutes of overlap on any given 70-minute pass.

When the DXpedition started, I was encouraged to see that Ludek was advertising his satellite passes on the website hams.at (https://hams.at). As I have mentioned before, this website is an excellent resource for grid and DXCC chasers. When I log in to the website it shows me the details for upcoming passes and whether they have common footprint with my location, indicated by a green "visible" label and a "match" score out of 100.

The Czech DXpedition webpage at https://www.cdxp.cz with information on their Liberia 2024 operation



The hams.at webpage (https://hams.at) as displayed on a smartphone screen, a great resource for satellite grid chasers

The A8OK passes were only posted on hams.at about 12 hours in advance. But since I check the website a couple times a day, that was not a problem for me. I am often active on Greencube in the mornings, local time. Conveniently, Ludek was also active as A8OK on these passes. I would have common footprint with Liberia when Greencube was low to the east for me. That works well for my QTH, overlooking the Strait of Georgia. However, this also meant that the rest of Canada, the US and Europe would also be in the footprint at the same time. Most of the Greencube operators are in these areas so the satellite is already busy when it is to my east and I have great difficulty getting digipeated. Then throw in a rare DX and you can see what I mean that it would not be a slam-dunk. Nonetheless, I did my best for several days during the morning passes to get the station but no luck. Of course, when it is morning for Nanaimo, it is midday for the rest of the continent and evening for Europe – popular operating times for satellite hams. It was no mystery why the satellite was busy. I saw that A8OK was only able to reply to a handful of the dozens of stations calling while both North American and Europe were in the footprint.

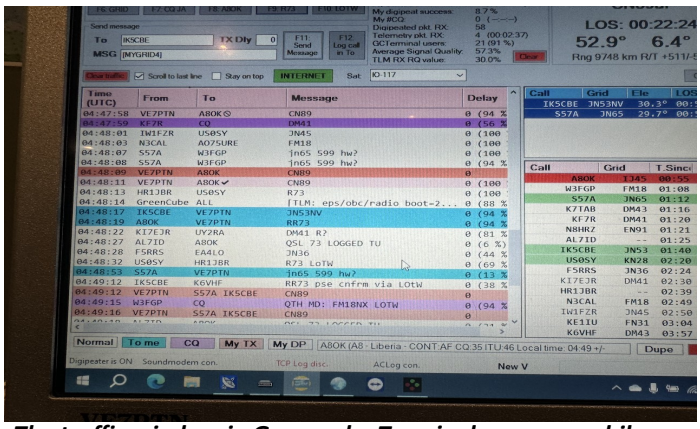
The A8OK satellite station

After a few days of trying I had pretty much given up on working A8OK. Then one evening, as I was checking hams.at to see what the action for the next morning looked like, I noticed that A8OK was going to be on a late evening pass for me at about 2200 hrs. That would be early morning for Europe and more conveniently it would be the middle of the night for most of Canada and the US. So, lots of the operators I would compete with on a morning pass would be asleep. At this point I was reminded of the saying "What is the definition of insanity? Doing the same thing as before and expecting a different result." That was what I had been doing by working my typical morning passes. So, if I wanted a different result, I would try a different approach and work a late day pass.

When I work Greencube in the mornings and afternoons the passes rise in the west and set in the east, or rise in the north and set in the south. But the late day pass meant I was working the other side of the orbit, and the satellite would rise in the southeast and set in the north. It would also be a very low pass, just 8° maximum elevation, barely above the coastal mountain range for much of the pass. I eagerly await the downlink from Greencube as the pass started. I could hear the digi-peater faintly squawking as the pass started; but there was more QSB than I was used to. A feature of the Greencube Terminal program that does the decoding of the digipeater is a "signal quality" reading as a percentage. For a typical pass, it starts around 10% but climbs to 100% after a few degrees above the horizon. This time, perhaps because of the low pass, the signal quality was low and variable, likely as the satellite passed behind the distant mountain peaks and then reappeared between them. (Also, I would discover a few days later that with all the solar activity, satellite propagation was unusually poor to the Van Allen Belt where Greencube flies, starting that very night and lasting for three days.)

The QSB was bad, but I was encouraged that, as I hoped, the satellite was not overcrowded with stations. I patiently waited for a period of good signal quality and made my call to A8OK, and… it was digipeated by the satellite! Unfortunately, A8OK did not hear my first call. How do I know this? Ludek had advertised an operating procedure for working A8OK via Greencube. He indicated that he would use another feature of Greencube Terminal called "UHM" (You Heard Me). When the operator calls another station and is digipeated by the satellite, the terminal program makes a request via the Internet to see if the station being called had heard the call via the satellite. When my call was digipeated, the terminal program told me "Station A8OK did **not** hear your call" with its computer voice and put a circle with a slash next to the call sign (see the 04:47:58 line at the top of the traffic window in the photo). I waited a few seconds and tried my call again. It was again digipeated but this time Terminal announced "Station A8OK heard your call" and placed a checkmark next to the call sign (see the 04:48:11 line in the photo). Yay! I had been heard by A8OK. Then at 04:48:19 I got a "RR73" back from A8OK. For Ludek, my receipt of his call would be

confirmed via the UHM feature. So, there was no need for me to send a further reply. In fact, that is the procedure requested by Ludek (and many roving Greencube operators): once you have a "73" message do not transmit again; your "thank you" is implied so leave space for another operator's QSO.



The traffic window in Greencube Terminal program while Bruce VE7PTN worked A8OK in Liberia

When the UHM feature was first added to Greencube Terminal a few months ago, some operators expressed concern that it made things too easy. Yet, most operators have embraced the feature, me included, since it helps to cut down on the colliding calls to the satellite – a chronic problem with Greencube. If my call is heard, no need to repeat. If my call is not heard, no need to repeat right away. Wait a few moments for conditions to change or the called station to finish another QSO.

Trying something different was very successful for me. And in this case, operating at a different time meant that I was accessible to European stations that would have difficulty getting me during my usual morning passes. After my A8OK QSO was complete, a few European stations called me (see 1K5CBE and S57A lines in blue in the traffic window photo). So not only did I catch the rare DX but I picked up a few new European stations and grids.

Well, that's all for another month. I will be heading out camping in a few weeks and will take my satellite gear. So, I might have another story to tell next month. 73.

Contact with Bulgaria

In April, George LZ2OQ emailed NARA secretary Devan to say that he had never worked British Columbia on the amateur bands. George asked if NARA could arrange a contact. David VA7DXX was assigned the task and then emailed George to arrange a sked. In the process David discovered that George was running 20 watts of CW to a wire antenna; a bit of a challenge!

Propagation charts were consulted and 20m looked like the best band at around either 18:30 Z or 05:00 Z. As George left for work at 04:45 Z (7:45 am local Bulgarian time) it was decided to first try the 18:30 Z sked time.

George LZ2OQ at his station in Bulgaria. George was first licensed in 1982 and is clearly a very active radio amateur

Two skeds were tried on successive days with LZ2OQ just hearing VA7DXX but with David unable to hear George's low power 20 watt signal. It was then agreed to try a sked at 04:30 Z, just before George had to leave for work. On the first try at 04:30 Z on Apr.29, George heard VA7DXX at S9+5dB and David was able to hear LZ2OQ's 20 watt signal at 559. A QSL card to LZ2OQ has been mailed to confirm the contact for George's award!

NARA Events for May

May 2 - **N**ARA Executive Meeting (Zoom)

May 9 - NARA General Meeting (Zoom)

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

The deadline for the June 2024 issue of the NARA Newsletter will be noon on Tuesday May 28 with an intended publication date of May 31

News items and comments should be sent to:

news@ve7na.ca

NARA Coffee Klatches

Day	Frequency	Time	Location
Tuesday	Weekly	10:30 am	**South end Smitty's**: #50 10th Street
Thursday	3rd Thursday of the month	7:00 pm	**Tim Hortons**: 2320 Northfield Road
Saturday	Weekly	9:00 am	**North end Smitty's**: 2980 North Island Hwy, in Rock City Centre