



Eastern Iowa DX Association

An ARRL affiliated club - Established 1975

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April 2024

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President's Propagation, Pontifications and Prognostics

What a great mild winter since we last met, in spite of a recent March snow that closed several schools! As I pondered the message for all of you, I reflected on what we've been doing in this new year.

Propagation has been pretty good and the Clipperton operation gave us all some fun chasing their all-band operation.

We, as a club, have many members well in the 340 count with impressive challenge scores.

It has been a time for me to consider my identity and seek challenges with our hobby that is so ingrained in our lives. Many of us have experienced life changing events. With the loss of our spouse, retirement, our inability to still climb our tower it feels like "timing out", so I have a couple of upbeat actions to share.

I recently entered into a project

Club Officers:

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Facebook EIDX A

of clearing out my basement.

You know, all the equipment that stopped working was piling up, along with outmoded computers and 30+ years of QST publications. We have a couple of new Hams and a few guys game for a project. I have invited them to my "open house" to find items that might be potentially useful. We are exchanging tips and advice. I offer no guarantees and no returns, but we're having fun and items are leaving my basement with a smile and invitation to return.

Another club member who is finding his mentoring angle, Rich W3ACO, has started the HAENDEL YL Operators Fund. His daughter is going to PJ2T and is sponsoring KI5SXY, a student at University of Missouri.

My challenge to you is give some thought to new ways we can help energize ourselves and each other with this lifelong hobby we share. I will include this as a discussion item at our April 12th meeting. Hope to see you then!

Glen KØJGH, President

Musings from the lunatic fringe

Bob WØGXA



Solar Eclipse QSO Party ([here](#))

The one contest where RST is not always 5NN!

April 8th, 14:00 - 24:00Z

With the mild late winter weather we've had, I got my winter antennas out of my neighbor's field in near record time. It's just as well because he was chiseling in some lime shortly thereafter.

Keep those cards and letters coming!

Club News and Administrative Items

Meeting minutes are located on the club website at EIDXA.org

NEXT MEETING

April 12, 2024
Social Hour 6:30 PM

Meeting & Program 7:30 PM
Meeting and location information [here](#)

Program: Flex vs Yaesu FTdx-10
Joe Spinks, AAØKW



Card Checkers

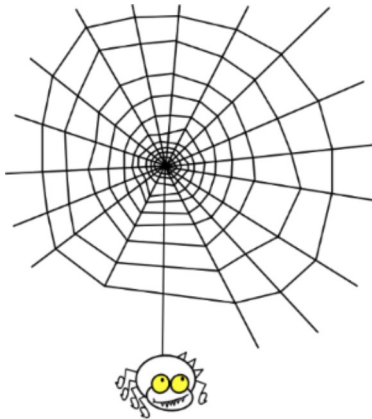
We have club members who can check your QSL cards

- Glenn, WØGJ
- Mike, NA9Q

Contact info can be found here:

<http://www.arrl.org/dxcc-card-checker-search>

Member Spotlight



Nothing to report this month. If you haven't been featured in the newsletter, let me know. We'd love to do a story.

DX News

Feature Articles

Have you ever tried “working the birds?”

Glenn Johnson, WØGJ

Forty-some years ago I made a couple of contacts with Oscar 7, with 2M uplink and 10M downlink. I don't even remember the mode, but the coordination of following the satellite, working the Doppler shift and everything else was so challenging, that "thrill" didn't last long.

One year at Field Day up in northern Minnesota, our group needed a satellite contact for a multiplier. One guy had one of the "Arrow" antennas in one hand and a duo-band handheld in the other. My job was to be the logger. He actually made a couple of contacts. I was impressed.

Some time later I bought an Arrow antenna and an Alinco DJ-G7 handheld, one of the few duplex crossband handhelds. It was a lot of work, but I managed to make half a dozen contacts from our deck. Life was busy. Then we moved. I'd forgotten about satellites. A lot of work for a few contacts.

I never had any further interest in satellite until last April while at the Visalia DX Convention in California. It was the end of the day and I was walking by the M2 antenna booth as they were taking it down. I heard,

"Psssst, hey Buddy, wanna buy a LEO antenna?"

"A what?"

"A LEO (Low Earth Orbit) antenna. I don't want to pack it back with me. Give ya a good deal!"

Boy, I got sucked into that one. I brought it home and it sat in my shop until a very rainy day last summer (you know, THAT day!). I put it together. It was comprised of an 8-element 2M antenna, circularly polarized and a 16-element 70 cm antenna, also circularly polarized. It sat assembled in the shop for the rest of the summer until after Christmas. I had no radio for satellites nor any AZ-EL rotor.

Then I found a good deal on an ICOM 9700, the VHF/UHF "twin" of the ICOM 7300. I needed to mount and move the antenna, one thing led to another. One day a Green Heron AZ-EL rotor arrived with a Yaesu G5500 rotor. Those sat in my shack for a couple of months. You know, busy with other projects... and working DX on HF.

I found a tripod and a mast, mounted the rotor and antenna, and there it sat in the yard for 6-8 weeks. I knew nothing about getting active on satellite.

Jeff Schwartz, KIØKB, in Colorado kept bugging me to get on the air and work DX on the GreenCube satellite, an MEO (Medium Earth Orbit) bird. I found an old computer I could dedicate, got some software installed (PSTRotor, UZ7HO Sound Modem and

GreenCubeTerminal or GCT). Jeff told me about the S.A.T. box, a little box that controls the radio/Doppler and the rotor. It also can follow any of the satellites. There's always one more thing..... I think I have everything I need now. No big amplifiers are needed.

One can use 75-100 watts for GC, but for all of the LEO satellites, QRP is best as the satellites put out power proportional to it's received signals. By the way, Jeff has an excellent step by step guide on how to set everything up for working the GreenCube satellite.

FINALLY, the week after Christmas when things had quieted down, I just HAD to get going. I wired up the rotor, ran cables to the LEO pack and got on the air December 30th.....with the help of the grandkids.

The GreenCube satellite, aka IO-117, is an Italian satellite with a mini-greenhouse, watching plants grow in space. AMSAT Italy found a way to install a packet digipeater on board as a tag along project. It's not FT8, but bursts of 1200 baud packet with the same info as exchanged in the FT modes: two callsigns, grid and 73, etc. It uses 70 cm (440 MHz) simplex.

Most LEO (Low Earth Orbit) satellites have about a 90-minute orbit and a workable footprint of maybe 10-12 minutes maximum, often much shorter. The Russians have an RS-44 linear satellite with maybe a 15-20 minute max footprint where mini-rag chews are possible.

The GreenCube orbit is almost three hours or more and the footprint is typically an hour to an hour and a quarter or more. The footprint covers about 1/3 of the earth's surface, enabling working DX. It is very common to have all of North America, Europe and Asia covered at once.

To make a long story short (and exciting!), within 2 weeks I had worked 30 states and 30 countries. A week later, 42 states and 45 countries. At the end of the first month, 49 states and 50 countries worked. Not bad! (South Dakota has no fixed station on GreenCube. Several guys have done roving in SD in the summer, and will be on this coming summer).

Now, at the end of 90 days, I have 49 states confirmed and 73 countries confirmed in the log. I've heard at least 15 more countries on passes that I have yet to get into the log. One of my biggest thrills was working an HZ station who called me just before LOS (Loss Of Signal). A few minutes later I get an excited email from him thanking me for the first North American contact on GC.

There are times when GC is near the horizon and maybe never more than a couple of degrees above the horizon and a pass that lasts only 10 minutes or so, That's when the "rare" DX is to be found. I'm amazed that some of the "rarer" countries on HF are very active on GC.

Like I said, GC is one of the packet satellites, using just bursts of packets. The LEO satellites are a mixture of "linear" or "FM" satellites. Some are 2M up and 70 cm down, some are vice versa. The FM satellites are typically simplex repeaters flying overhead. The linear satellites will use LSB up/USB down, or vice versa, over a small spectrum, so signals spread out.

The S.A.T. box will show that there is an active ham satellite overhead almost 24 hours a day. Sometimes, many at once. Again, these are LEO satellites with short time footprints. I had no idea there was so much satellite activity overhead. It's astounding. A LEO satellite is not much good for DX because of the low orbit. Currently GC is the only MEO available to work any DX. The cube satellites are getting smaller and smaller, too.

WØJW south of Des Moines is the only other active satellite station using GreenCube. A total of over 3000 callsigns have been reported through GC.

I've had an absolute blast of fun in the last three months!!! My only regret is that I've put it off so long. Early on, my life and schedule revolved around GC passes. I'm loosening up a little bit now, but still watch every pass I can. Will it be possible to get DXCC on satellite this year? We'll see!

73, Glenn WØGJ EN43 Calmar, IA



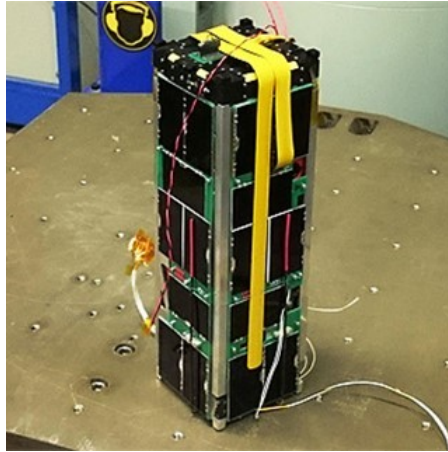
LEO pack antenna, Yaseu G5500 AZ-EL rotor on tripod. WØGJ's secondary harmonics, 7-year old triplets for size comparison. Great helpers!!!



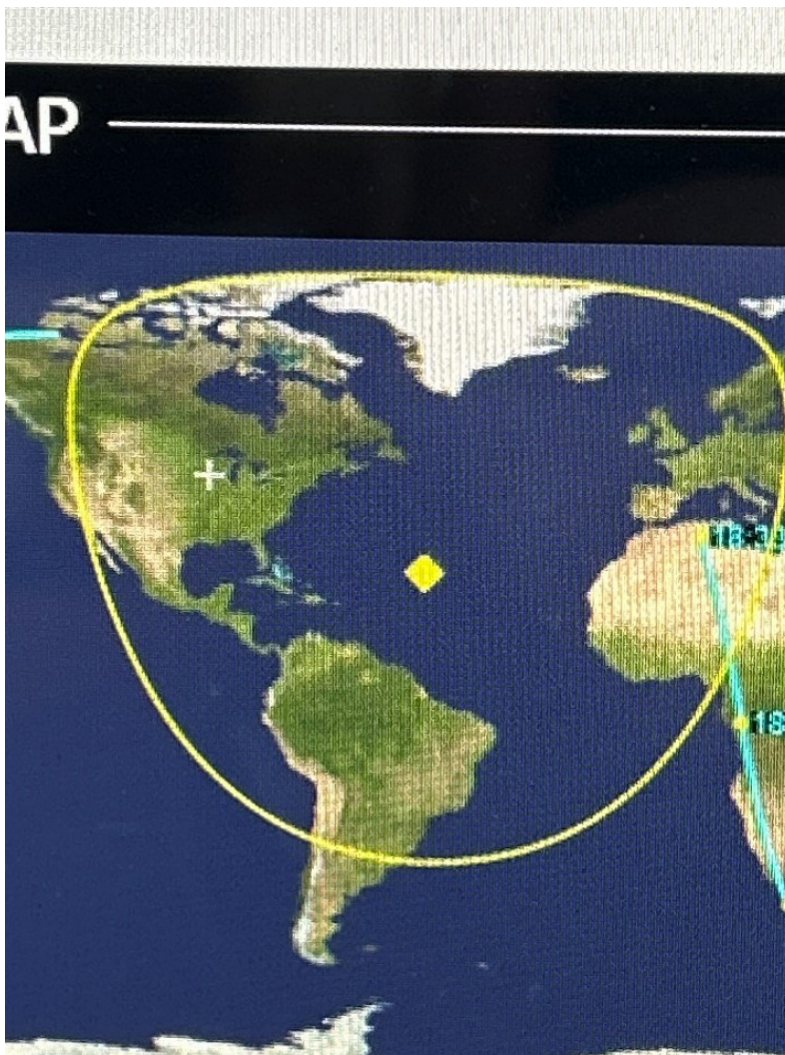
WØGJ satellite station. ICOM 9700 with S.A.T. controller (and it's display), Green Heron AZ-EL rotor controller, monitor is sitting on an old mini-computer.



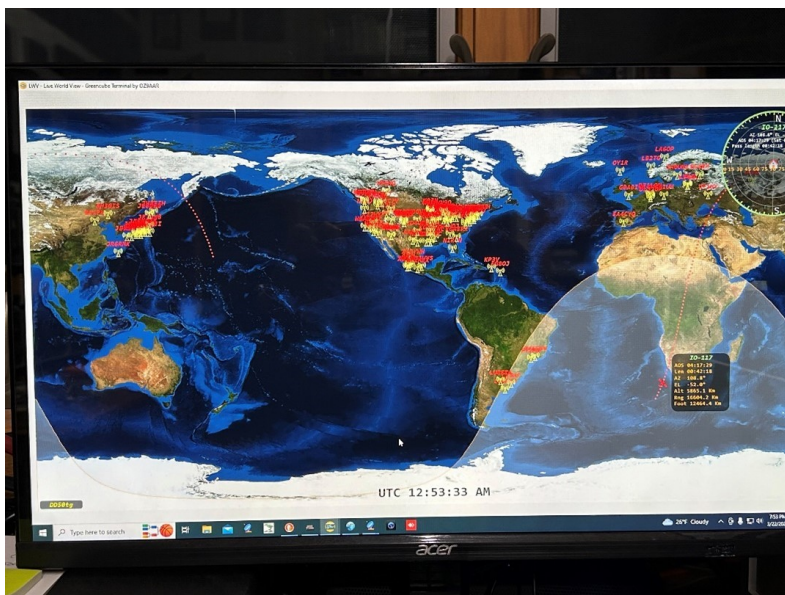
The incredible magic S.A.T. box that does "everything!"



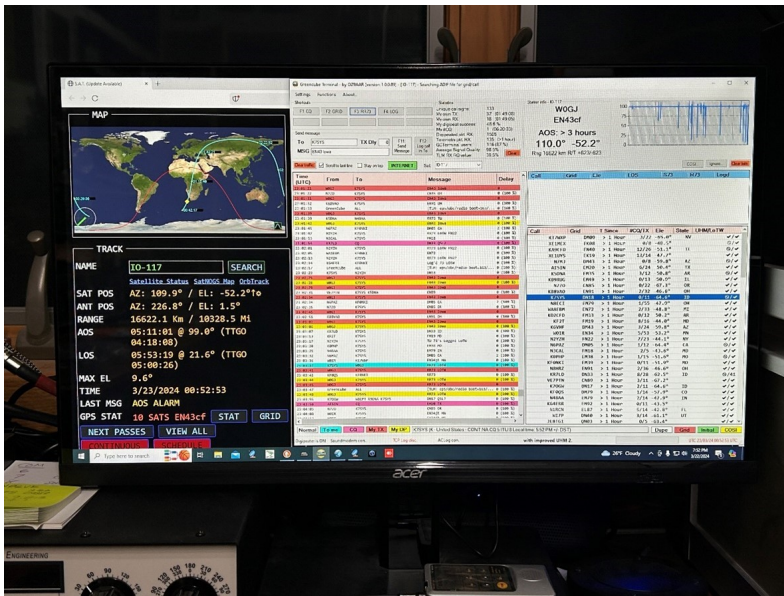
GreenCube, aka IO-117, satellite



Typical GreenCube footprint



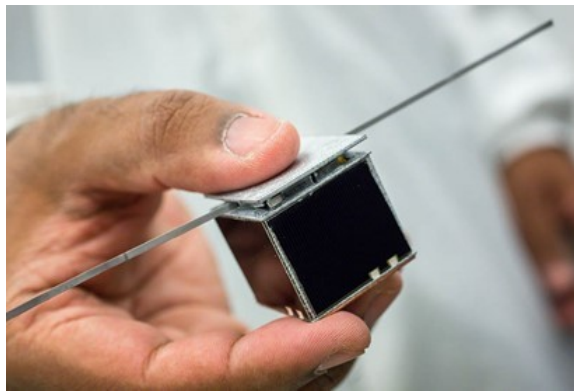
Users on a typical GreenCube pass



Operating screen: Satellite info on left, GreenCubeTerminal program on right.



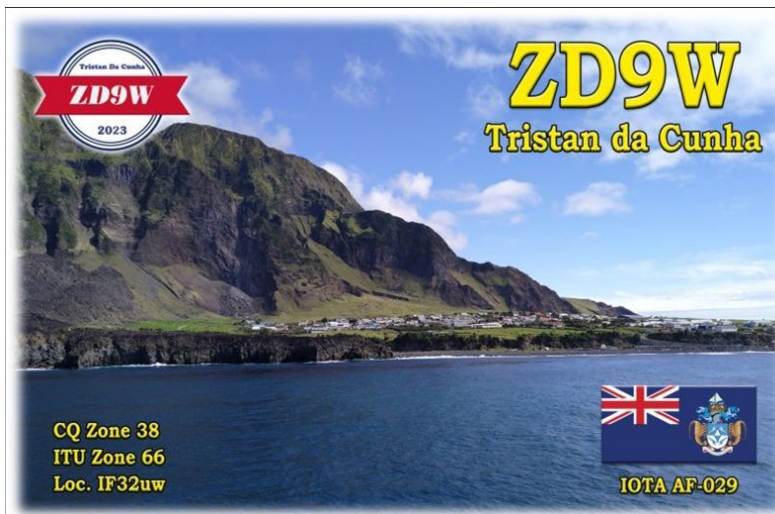
Vivien, KL7YL, holding a Cube Sat at Dayton 2016.



Now we have a “fleet” of Pico-sats overhead, 2024.

ZD9W - Tristan Da Cunha Island

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Yuris YL2GM starting DXpedition from home in Latvia

Hi there! We meet again with one of the LRSF latest DX-pedition's story. There has been already one more DX pedition after ZD9W, however, I will talk about that another time.

The first plans to visit Tristan Da Cunha Island (ZD9) were already set in 2018. Initially it was planned to visit ZD9 with a four-operator team. However, couple weeks before starting our trip we were informed by island representative that there won't be any available berths for us on the ship. The regulations say that the first hand for berths on the ship is for islanders, followed by their relatives, then officials and our category as tourists are the last ones to pick.



Lance

After this came covid and the island was closed down for all visitors. All restrictions were lifted only in spring 2023 and immediately I started to communicate with the island administration. Opportunity came up, however, this time I decided to go alone because the chances to get berths for more operators were lower. I was offered a berth on a cargo ship "Lance" leaving Cape Town on 15th of September 2023. The return was planned with fishing vessel "Edinburg" on 24th of October 2023.

As I'm used to do, in a timely manner I acquired necessary plane tickets and together with them I posted all necessary documentation to South African embassy in Stockholm to receive visa. On that day when I should have received back my documents and visa, instead I got returned mail with a mark that the recipient did not collect it. Remaining time window till plane departure was getting shorter and to mitigate risks I decided to go for visa in person and the next day I was on a flight to Stockholm. Unfortunately, the visa was declined because my passport did not have enough empty spaces. To receive visa there has to be at least two blank pages left. Flew back home and in a matter of urgency a new passport was made the same day for additional costs. One more flight to Stockholm and the embassy staff was already waiting for me, visa was ready later in the afternoon.



Yuri sitting in the captain's chair

On Monday 11th of September, the trip begins by boarding the plane from Riga to Cape Town. As usual, I have one extra bag of gear with me and this makes it difficult when I have to change terminals in Frankfurt airport by taking train between the terminals, baggage carts are no option there and all bags had to be carried by hands. After landing in Cape Town, I have three days to spend. I settle in a hotel and rent a car to visit my friend. During the visit I pick up antenna bag

with Spiderbeam, LBS vertical and cables that I left with him during my previous visits.

Departure of Lance was planned on 15th of September 14:00z. The day before I brought all bags with equipment to the ferry station and in the morning the shuttle bus took me to the port. After passing through all travel formalities and boarding the ship, everyone was shown to their individual rooms. The ship left the port as planned and the ocean journey had begun.



Lance`s chef

Later that day we were invited to lunch and got introduced to the captain. Afterwards the ship crew took us for a tour to great cabin, ship deck, engine deck, storage spaces and answered to all of our questions. We did also get the basic training regarding ship security. When the evening came, I started to feel sea sick and this continued for one more day. Chamomile tea helped and on third day I was feeling like nothing had happened.

During further trip I get acquainted with the ship`s captain Oleg. He is a good man originally coming from Kaliningrad and has managed to complete international ship crew that works like a watch. His ship "Lance" is the main supply ship for Tristan Da Cunha Island with its 234 islanders. Special shout out to "Lance" Indonesian chef, who prepares food for 18-man crew and other passengers. Food is served three times daily with lots of variety and imagination. Any restaurant would be grateful to have a chef like him.



First sight of Tristan Da Cunha Island through fog

The voyage continues and the initial plan to reach Tristan Da Cunha Island is one week later on 22nd of September. However, captain informs us that the weather conditions will be getting worse and in best case scenario we will reach our destination only by 26th of September. Also, this heavily depends from local weather on the island whether we will be able to disembark.

Internet on the ship is very limited only available every second day for one hour only for text messaging. No picture and video transfer possible. However, this is enough to inform our families that we are safe.

After rough sailing through high winds and waves, in the evening of 27th of September, we finally saw the contours of Tristan Da Cunha Island and when we reached the island it was completely dark outside. Next morning the weather was bad and we had to spend one more day on the ship. Bags are packed and we are hopefully waiting for next day to finally disembark. Around midday, the barge arrives and takes us ashore.



Waiting to disembark

Locals and Islands administration kindly welcomes us and show us to our homes. In my possession I have a guest house, however, there is problem with little space for antennas because the house is close to other house yards and roads. Nevertheless, I set up small vertical for FT8 and turn on the station. First expedition QSO is made with JE1RMI on 21 Mc 15:25. Then it starts to rain and the wind is getting stronger. There is no internet at the guesthouse so I have to go to town center where the internet station and its antennas is located. After receiving login credentials, I finally can contact home.



Guest house - first QTH location

During the night weather conditions are getting worse and when the morning comes, I see that my vertical has been broken in half, however, the upper bands are still operational. Later, after raining stops, I find some time to fix the antenna. With the afternoon the rain and high winds return. The weather forecast with 50 m/s winds are starting to come true and I have to take down the antenna for the wind not to break it again. With morning the storm has passed and I return to work.

Tuesday morning, I went to tourism administration and talked about finding different location for me because this one was not suited for my activities. I asked for a place somewhere in town outskirts so there would be place for setting up antennas. Some of the guest houses were going to be vacated only on 15th of October when the next ship departures. In the end, we found different solution and arranged a room in the kindergarten building. Kindergarten works 5 days a week from morning till 3pm, with 3 baby sitters and 5 kids. With place for antennas and free horizon to main directions for US, EU and JA this place was ideal. For lunch and dinner every day I still went to the guesthouse where the meals were prepared by the hosts.



Vertical bending in the strong winds



Antennas and the free horizon

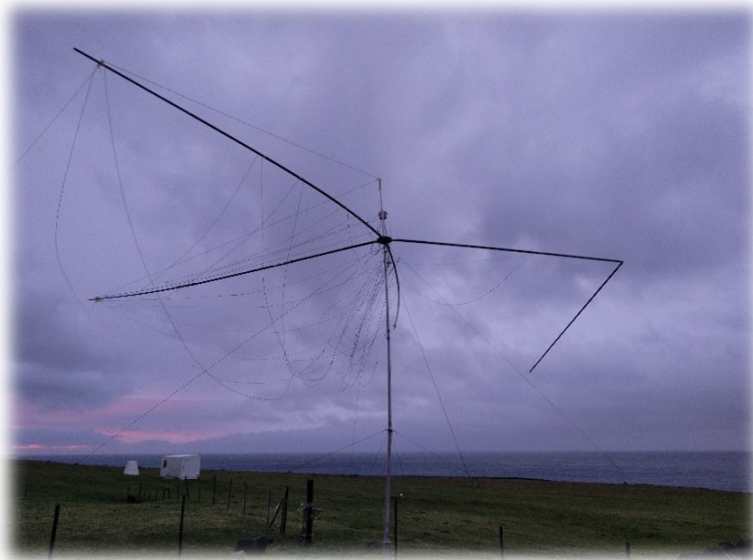


Antennas and the mountain behind, station bottom-left

For the next three days the weather forecast was ideal so firstly I started with setting up LBS 18m vertical for low bands that was located inside fence perimeter and its 20m radials didn't trouble anyone. This was followed by Spiderbeam and 6m antenna that were placed closer to the station. Antennas for this expedition were prepared so I could set them up alone without help from others.

At this point I could have said that the station was ready and all that remained is just to operate. However, my work with the antennas didn't stop there. On Friday 11th of October, during midday the wind gusts got stronger. With high difficulties I managed to lower Spiderbeam and LBS vertical. For the next day antennas remained lowered and just before getting dark I raised LBS vertical to work EU and JA on 80m telegraph. I was planning to do the same on low bands for the following night as well, however, the weather had different plans and the winds just got stronger. This continued for a week and during these days I lowered and fixed LBS vertical three times and similar situation

was with Spiderbeam also. The 6m Yagi was beyond repairs.



Broken Spiderbeam

On early morning of 21st of October, while there still was dark outside, SPE power amplifier switched off several times. It turned out that the antenna field got visited by cows and one cow with its calf tangled in the Spiderbeam guy wires and my last hopes to fix this antenna were gone with freeing them. Last expedition days were worked only with DX Commander and LBS vertical.



Broken LBS vertical



Cows tangled in the Spiderbeam wires

Initially my goal was to make 60k QSOs so it would qualify for a new Single Op record. However, on 17th of October, when this milestone was reached, my friend Girts YL2KL encouraged me to go for 70k QSOs. The #70 was also special because of my 70th birthday that was coming soon. Doing this was tough but in the end, I managed to reach this result on Sunday evening 20:27z by making the last 70112th QSO on 7 mc CW with CQ0ODX. During the dark I took down the DX Commander and packed my gear.

Ship Edinburg arrived on Friday, however, weather conditions permitted passengers to disembark only on Monday. Monday morning, after finishing all formalities in the immigration and tourism office, I visited the islands administration and then it was time for boarding. This time the ship was a fishing vessel that's used to catch lobsters that are being processed and packed right there in the ships factory.



With Tristan Da Cunha's Island administrator

Initially, the sailing was planned for 7 days but because of bad weather conditions it was 2 days longer and Cape Town was reached only on

Thursday morning. After disembarking and travel formalities I drove to the airport that was followed by couple of flights and finally on Friday's evening I was greeted by my loving wife in Riga airport.

This time I was away from home for more than six weeks. Back home I will be only for one week before going to the next DXpedition VK9XY un VK9CY.

Thanks to all supporters and family. Thanks for going through all of this together with me.

73, Juris /Yuris /YL2GM

Expedition website: <https://lral.lv/zd9w/>





March 23rd 2024, Pico Balloon NE9JJ-2 with Weather Sensor makes 2nd circumnavigation

MARCH 23, 2024 / KD9ITO

Click [here](#) to see a pretty cool article on balloons. - Ed.



Member News

The Haendel YL Operators Travel Fund

Rich W3ACO and Melissa W7MAH founded the YLOTF to increase the number of YLs operating at DX entities. They are sponsoring another female operator to go to PJ2T in October.

She is Morgan Lyons, KI5SXY she is a student at the University of Missouri. The fund will pay for travel, food and accommodation costs. She will operate during the CQ WW SSB contest.

Contributions are welcome. Contact Rich

Logbook

Some of the DX being worked up in MN:

4K6FO (12), 5H4AYL, 5X7O, 7O2WX, 7P8AO, A31DL, A71UN/P, AP2FLY (12), CBØZA (160), ET3AA, EX8MLE, EY8MM (12 & 10), FW8GC, H4ØWA (80), HC1MD/2 (6), HC2FG (6), HZ1LR (30), J52EC (10), JG8NQJ/JD1M (12M), PUØFDN (80), TX5S (160, 6M), TY5C

(80), UK8OM, V51JP, V51MA, VU4N, XU7GNY (10), ZL1RS (6M), ZL1AKW (6M).

I think the best catch of the above list was working the TX5S Clipperton DXpedition on six meters. The operator on 50.189 was thinking he was on EME. KA9FOX alerted me that he was copying him terrestrial, not EME! Once the operator was informed of that fact he switched to FT8. But, instead of QSYing to 50.313, he stayed on 50.189. That really helped me in that the number of those calling him was pretty limited! One never knows what might happen on six meters!

Tom, NYØV

CQ Test

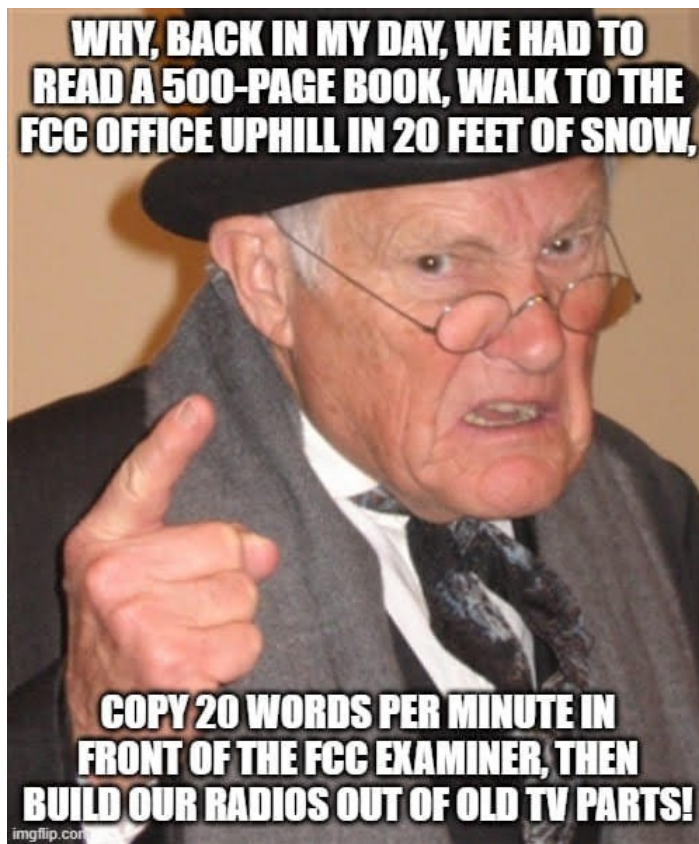
QRM



A few hams out for lunch at Hy-Vee



Barry WØIY, Mark K8XK, Rod KØDAS, Jon WØMJK, Dan WØWMU, Steve NUØP, Bill NØLNO, Al KØVM





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