

Newsletter of the Amateur Radio Society of India - VU2ZH Indian Affiliate of the I.A.R.U July 2024 issue



Gopan VU3HPF / MØXUU operating the station VO1ØØQO on Signal Hill, Newfoundland. Full story inside.



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PRESIDENT'S MESSAGE



ARSI Events - A Recap

We are seeing a lot of activity since the beginning of this year.

We started with the ARSI National Field Day & Hill Topping Contest during the last weekend of January with a big participation of up to 80 teams.

This was followed by the 40M SSB Contest in the first week of April and VU Rookie Contest during the last week of April.

We had the QRP Day contest during the last week of June 2024.

We are looking forward to our participation in the IARU HF Championship with ARSI special call AT1HQ, second weekend of July.

Though there have been some delays in shipping the mementos to the prize winners, we are hopeful that this will be done very soon.

Rest of the year, we are looking forward to the VU DX Contest during the end of August and the 40M CW Contest in December.

Looking forward to meet you during the ARSI AGM 2024

73, de Ramesh Kumar VU2LU





FROM THE EDITOR'S DESK



How time flies! We have already passed the half-way mark of the year! Good to see that there has been a lot of activity by members taking part in contests.

Solar activity has been gradually gaining strength during its current Solar Cycle 25, and the NOAA Space Weather Prediction Center predicts that solar maximum will occur between late 2024 and early 2026. As I am writing this, the sunspot number is 184. (*The highest recorded sunspot number was 285 in March 1958*). Notwithstanding the prediction, scientists cannot confirm whether the solar maximum has been reached until at least seven months after the fact – because of the delay in computing data.

This issue of HRN includes three stories of VU amateurs – one operating the radio station on Signal Hill, Newfoundland, to accomplish what AMSAT-UK thought was impossible, and another journeying to Antarctica as the Radio Officer to the 42nd Indian Scientific Expedition to Antarctica. The third is about a group of amateurs' journey to **Kargil** in the Himalayas to operation a special station commemorating the KARGIL DIVAS – India's victory in the Kargil War of 1999. I am sure members will find these interesting.

There have been several other events / activities but members have not forwarded reports to the Editor for publication in the HRN. I am starving for articles, HI I humbly request members to forward details of any activity they undertake either individually or through their clubs along with some photos. I also request all the Club Secretaries to send me information on the club activities for publication. I am sure we can make the HRN a lot more interesting.

73 and my best wishes to all!

Ganesh VU2TS



Gopan VU3HPF/ MØXUU ACCEPTS AMSAT-UK CHALLENGE!

QO-100, the one-and-only *geostationary ham-satellite* is placed right above the African Continent, and covers the whole of Africa, East Europe, the United Kingdom, West Asia, India, half of China and Russia and the eastern projection of South America that includes Brazil. The entire North American continent – *Mexico, the United States of America and Canada* – is out of QO-100's horizon or coverage area. In other words, North America does not fall within the 'footprint' of QO-100.

In November 2022, the **UK wing of AMSAT** launched what looked like an impossible challenge. An award was announced for the first amateur radio operator who could, from anywhere in North America, establish two-way contact with another amateur station in Europe, Asia, or any other location where QO-100 has coverage. *It was jokingly said that it would have been easier for someone with a mobile phone to travel to the planet Mars and connect with friends on Earth. HI.*

But Gopan VBU3HPF who also has a UK callsign MØXUU didn't think so. Here's a report on the activation of VO1/MØXUU - by Gopan himself:

Preparation:

This activation was very different to anything I had tried before, in that the probability of success, even before I started, was about 50%. I needed to work on the things I could control for the best chance of success.

From various sources it was evident that propagation on 10Ghz was going to be a challenge as it is dependent on wx conditions. As for 2.4 GHz we know this was tested successfully below horizon in the past.

By mid-April most of the equipment was tested and ready, but I still hadn't figured out a way to point the dish to the horizon. Learning from previous low horizon activations, I decided to mount the dish in an inverted position. The tilt mount was reversed to avoid the dish hitting the mounting pole.

In addition, to aid with the dish pointing at St. John's, I prepared a list of commercial satellites close to Es'hail 2 (QO-100) and identified the beacons from these. The plan was to start with a satellite that covers St. John's and slowly progress to QO-100. This was to ensure that the dish pointed in the right direction.

The following table shows the elevation of various satellites from my home location and at Petty Harbour.

			a			1 Olly		Tharbour
Pos	Beacon Pol IF		IF	RX	Home (51.42308 / -0.94361)		Petty Harbour (47.46552 / -52.70359)	
	Mhz		Mhz	Mhz	Azimuth	Elevation	Azimuth	Elevation
16.0 E	11200.80	Н		1450.80	158.68	29.03	106	5.55
19.2 E	10943.50	н		1193.50	154.87	28.19	103.53	3.45
21.6 E	11200.20	Н		1450.20	152	27.53	101.64	1.9
23.5 E	11446.25	н		1696.25	149.87	26.88	100.27	0.63
25.8 E	10489.50	V		739.50	147.19	26.06	98.5	-0.93
	Pos 16.0 E 19.2 E 21.6 E 23.5 E 25.8 E	Pos Beacon Mhz 16.0 E 11200.80 19.2 E 10943.50 21.6 E 11200.20 23.5 E 11446.25 25.8 E 10489.50	Pos Beacon Mhz Pol Mhz 16.0 E 11200.80 H 19.2 E 10943.50 H 21.6 E 11200.20 H 23.5 E 11446.25 H 25.8 E 10489.50 V	Pos Beacon Pol IF Mhz Mhz Mhz 16.0 E 11200.80 H 9750.00 19.2 E 10943.50 H 9750.00 21.6 E 11200.20 H 9750.00 23.5 E 11446.25 H 9750.00 25.8 E 10489.50 V 9750.00	Pos Beacon Pol IF RX Mhz Mhz Mhz Mhz 16.0 E 11200.80 H 9750.00 1450.80 19.2 E 10943.50 H 9750.00 1193.50 21.6 E 11200.20 H 9750.00 1450.20 23.5 E 11446.25 H 9750.00 1696.25 25.8 E 10489.50 V 9750.00 739.50	Pos Beacon Pol IF RX Home (51.423 Mhz Mhz Mhz Mhz Azimuth 16.0 E 11200.80 H 9750.00 1450.80 158.68 19.2 E 10943.50 H 9750.00 1193.50 154.87 21.6 E 11200.20 H 9750.00 1450.20 152 23.5 E 11446.25 H 9750.00 1696.25 149.87 25.8 E 10489.50 V 9750.00 739.50 147.19	Pos Beacon Pol IF RX Home (51.42308 / -0.94361) Mhz Mhz Mhz Max Azimuth Elevation 16.0 E 11200.80 H 9750.00 1450.80 158.68 29.03 19.2 E 10943.50 H 9750.00 1193.50 154.87 28.19 21.6 E 11200.20 H 9750.00 1450.20 152 27.53 23.5 E 11446.25 H 9750.00 739.50 147.19 26.06	Pos Beacon Pol IF RX Home (51.42308 / -0.94361) Petty Harbour (47 Mhz Mhz Mhz Mhz Azimuth Elevation Azimuth 16.0 E 11200.80 H 9750.00 1450.80 158.68 29.03 106 19.2 E 10943.50 H 9750.00 1193.50 154.87 28.19 103.53 21.6 E 11200.20 H 9750.00 1450.20 152 27.53 101.64 23.5 E 11446.25 H 9750.00 1696.25 149.87 26.88 100.27 25.8 E 10489.50 V 9750.00 739.50 147.19 26.06 98.5



The next step was to understand the change in position of the geostationary satellite over a 24 hour period. This was mentioned by Graham G3VZV in the challenge video as it could affect the signals received at St. John's.

To better understand the change in position, the following chart was created from satellite data over a 3-day period, based on information collected from N2YO and Orbtrack websites.



The above chart shows the altitude variance (in kms) vs time (UTC). Its unclear if the altitude increases as the satellite moves further east or west, and this might have an impact on receiving signals at VO1.

Further study is required to better understand this pattern of change and its impact on footprint.

Location:

To maximise chances of success, I started looking for potential locations with a clear view to the eastern horizon from St John's. With the help of BATC's Dish pointer site and Airbnb, I found a place which had both a clear view and a bonus open balcony facing the sea. The location was Petty Harbour, a famous small town on the east side of peninsula and south of St. John's. (Aquaman filmed several scenes / landscapes and exteriors in Petty Harbour.)

 In 1901, Signal Hill was at the centre of a major international breakthrough when Guglielmo Marconi, using an antenna suspended at 500 feet by kite, received the first transatlantic wireless signal, the letter 'S' in Morse code, transmitted from Poldhu, Cornwal – U.K. a landmark achievement in global communications history. Ed/





Equipment & Software:

Most of the equipment needed for this activation was already in use at home, but I wanted to make sure back-up options were available.

The main station was the transverter I use at home; this was built around various components and ICOM IC705 as the IF rig. Both the up-converter (DX Patrol V2) and down-converter built on David's design (G0MRF) were modified to have an external mixing signal source from ADF4351 using a homemade controller. Everything was tied to a 25Mhz GPSDO source.



The backup station was built around Pluto+ SDR. This was a standard build and had the CN417 amplifier, bandpass and a bias tee for the LNB. The plan was to use the SDR Console for this setup.





Both the main and backup setup could feed into an external amplifier, all terminated with same connectors for easy swap between the two. The main amplifier was a homebrew using MW7IC2725N and the backup was from SG Labs. Both were setup to push around 10W.



There were also two LNBs, one modified for 25Mhz ref. input from a GPSDO (Leo Bodnar) and the other a TCXO modified LNB. The plan was to use the TCXO modified LNB for the initial dish alignment and setup.

At home I use a 3.5T helix and have experience in building these, so the obvious choice was to build two to carry. This is when I came across the work by Guenter DL6YCL and Rene DK1KT.

The design was referred to as YATT (Yet Another Two Turn) with an inner diameter of 51.7mm. This was interesting as it appeared to perform well on TX (with dish sizes ranging from 35cm to 60cm) and had minimal attenuation on RX. Since I was carrying an 80 cm dish, the design recommendation was to use a 2.5T for better performance.

Finally, the dish. This was the biggest worry from the start. I knew from Gustavo PR8KW's below horizon CX activation that using a 60cm dish had difficulties with RX blackouts. I decided to carry an 80 cm aluminum dish. Graham VO1DZ kindly offered the use of his 1-meter dish which was my backup.

The next task was to decide on how to carry the dish in a standard airline check-in bag. The only option was to cut the dish but I was unsure about the physical stability and shape of the dish after cutting.

After looking at various options, I used square aluminum angle profiles, cut into smaller pieces and joined together using M4 screw/nut. These pieces were fixed on the back of the dish on either side of the central line and riveted. It turned out to be



quite sturdy and retained the shape of the dish. The top and bottom part of the dish was supported by a flat aluminium profile (bent to match the curve of the dish).



The software used was SDR Console (from Simon G4ELI) to monitor RX signals along with the main rig, MHSV for FT4/FT8 and N1MM for logging.

At St.John's:

Our arrival into St. John's in the afternoon of the 8th of May was greeted by fog and drizzle. The RX setup was completed later that evening, including dish assembly and pointing.

8th May @21:30 NL No signals were received from the CW beacon.

The next try was an early start on the 9th of May, just after sunrise. The day looked promising, with not much cloud cover and a clear view to the horizon.



9th May @06:30 NL no signals. As planned, I tried to point the dish to ASTRA 1 at an elevation of 3.45 deg. but no signals were received on 10943.50 Mhz. This was strange as ASTRA 1's footprint covers St. John's. I then repositioned the dish above



the balcony rails for the next try, as the wooden rails may have been blocking the signals. Luckily the house had outdoor benches that I could fix the tripod to.



The re-positioning was a success - I managed to receive the ASTRA 1 beacon and it was quite strong. I could then reduce the elevation and alter the azimuth to point to Es'hail 2.

After a few minutes of fine adjustments, I suddenly saw a spike in the waterfall. Tuned into the spike and YES *there was the melody of the lower beacon!* That was a moment of pure joy, relief, and excitement.

9th May @09:00 NL time, received CW beacon from QO100.

The signals had deep QSB and completely faded away after a few minutes. Not realising how deep the QSB was, I started to adjust the dish, which was a wrong move.

Top tip: Wait for the signals to peak before doing final adjustments on the dish and do not touch the dish again.

The first OP I heard on QO-100 from VO1 was **HB9JNH** calling CQ on CW at 12:45 UTC. I will be sending a SWL Report to him, when the QSL Cards are ready.

The day turned out to be a fine one, brightening to a sunny day.



Graham VO1DZ and Frank VO1HP, visited the shack soon after that and brought the VO1NAR Beacon and the 1-meter dish. The CW beacon was switched on for a few minutes and we got confirmation from Remco PA3FYM, Rene PE1CMO and Peter PA2V that they could copy the signals on **539**.

9th **May** @12:00 NL the signals peaked to 20.8 db SNR. This was the maximum signal I received with my setup during the stay.



By the evening, although the sky was clear with no clouds, the signals were weak and had deep QSB.

9th May @17:00 NL signals were around 13db SNR.

9th May @19:00 NL signals disappeared completely.

On having a chat with David to understand the reasoning behind the lack of signals even in good weather conditions, we thought this might link back to the change in altitude of the satellite, as seen in the earlier chart. We later found out that this may not have been the only reason.



No activity was planned for the 10th of May, however I did a quick check in the morning for receive signals.

10th May @05:00 NL No signals.

10th May @07:00 NL very faint peaking to 12.8 db SNR.

On **11th May** I started **@06:30 NL with no signals** from SAT. It was cold -1 deg C, cloudy but dry (no rain). Signals started peaking **@07:00 NL to about 13 db SNR.**

I did some tests with TX and could hear signals from Goonhilly Websdr. After a quick chat with Nina and David, I started listening for a FT8 CQ Call from David on .546.

I could decode David G0MRF after a few tries, but my signals were so weak it took 16 tries before success.

11th May @10:23 NL First 2-way QSO from Newfoundland via QO100 with G0MRF.



Once the first contact was established, I started working other stations and as the condition improved, the QSO count also increased. It was a difficult run with deep QSBs, going from a screen full of stations calling at one point to a blank screen after few minutes.

I continued on CW later that evening. The only thing that worked was QRS CW and lots of repeats. **Nina DL2GRC was already on the frequency and my first contact on CW**.





With Graham VO1DZ after the first contact

By then I could hear many stations calling and only the stronger ones were able to get through the QSB. Anyone who tried calling me faster than 15 WPM just didn't make it. One of the loudest signals that night was from Jussi OH5LK, I was able to work him just like a local station.

12th May @00:00 NL beacon still being received, even in rainy conditions.

Therefore it appears that while the local weather condition matters, signals are also affected by the condition at the horizon.

It also confirms that we can still receive the signals even when there is a change to satellite's altitude (note the altitude increases from 16:00 UTC). The signals were readable even at 02:00 UTC.

Forcast for Sunday May 12th was not good, lots of rain predicted. I used this opportunity to visit Cabot Towers VO1AA and Chris VO1CH. HF conditions were not in favour with the solar flair the pervious night.

Conditions were good again on 12th evening, I managed to work many on CW and on FT8/4.

The furthest station I worked that night was Gopan VU2XTO in South India. Also managed to work Lucky VU2LBW and Manoj VU2CPL. Test to contact a Qatari station did not succeed even after several attempts, thanks for A75GT / A71UN for trying.



The final day of my activation was on the 13th of May. After a final round of sightseeing, we got back around 1 PM. Met John VE1CWJ, Stefan VE4SW and the massive dish at Maddox Cove on the way back. This was just a few metres away from my location, we spent some time setting up, chatting and I saw their signals peaking to 30db SNR!. Credit to both for being brave to try this out in the open!

It was then the turn of Graham VO1DZ to go on-air on QO-100.

@13th May @14:00 NL the signals were at 19 db SNR.

As it was not a pre-announced activation by Graham, there was even a brief talk of a pirate station VO1DZ on the QO-100 WhatsApp group but this was not the case!

This was the end of my experiment with QO100 at St. John's.

There was just enough time for one more catchup – this time with Joe VO1BQ, who linked me up with Chris and Graham.

We got the flight back to the UK just after midnight on the 15th of May, arriving back home just as David and Graham were checking in to leave for their adventure in St. John's.

I would like to thank everyone who called us and sorry to anyone who didn't manage a QSO with me or Graham.

A special QSL card is being designed for the activation. LOTW upload is delayed due to the ongoing issue at ARRL and will be uploaded as soon as it is available. Meanwhile please check your logs in Club log and QO100 Club.

Final count from GN37pl

VO1/M0XUU - Total 220 QSOs (FT8/4 – 144, CW -76)

VO1DZ - Total 37 (FT8)

May 12, AMSAT-UK posted on X (formerly Twitter)

On Saturday, May 11, 2024, Gopan - VO1/MØXUU succeeded in making the first contact from North America through the Amateur Radio QO-100 geostationary satellite transponder located at 26° East. (MØXUU is Gopan's UK callsign. VO1 is the prefix allocated to him for working in Canada. His Indian callsign is VU3HPF.







One of the takeaways from the challenge is, if there is no obstruction and if there is a clear view over the sea, radio signals can travel beyond the fixed boundaries of the satellite. A satellite's *footprint* is not really a closed border or a strict cut-off as was originally thought.

R Gopan<mx0xuu@gmail.com>



Amateur Radio to Antarctica: Journey as a radio operator

By Sarabjeet Singh Chhabra VU2CUW – AT42I - 9th DEC 2022 to 24th MAR 2024

At 27, I found myself surrounded by endless stretches of ice and snow, part of the 42nd Indian Scientific Expedition to Antarctica. My journey to being a radio operator on this remote continent has been filled with adventure, growth, and unique experiences.



Early Inspirations

My father, who encouraged me to become an amateur radio operator, inspired my journey. We sat for the exam together, and in 2015, during college, I received my HAM license. My amateur radio callsign is VU2CUW, and my special callsign for Antarctica is AT42I. My passion for electronics and radio communication, coupled with a bachelor's degree in the same field, work experience as a RF Engineer and guidance from a dear friend Mr. Bhagwati Prasad VU3BPZ, laid the foundation for my role in the expedition.

Preparation and Training

Before embarking on the journey, I underwent rigorous training and acclimatization. We trained at Auli and Badrinath, with activities like trekking, camping, rock climbing, and rescue training. Later, in Goa, we had our briefing and first aid, basic medication, and survival in polar regions training. The final leg of our journey began in Mumbai, with flights to Cape Town and then Antarctica via a massive IL-76 aircraft. Landing on an ice runway in Antarctica was a surreal experience. The crisp air and white landscape were breathtaking. Navigating the icy terrain was challenging, but it was exhilarating. The previous expedition team welcomed us and escorted us to the Maitri station in a unique vehicle called the **Pistenbully** – a *snow groomer*.

I felt proud to be among the few Indians to experience this extraordinary environment. I stayed in Antarctica from 9th December 2022 to 24th March 2024.

Responsibility as a radio operator

As the expedition's radio operator, I was responsible for installing and maintaining radio equipment, managing frequencies, and coordinating Heli operations. I ensured



safe communication during fieldwork, monitored convoy operations, and responded to emergencies.



My role also involved configuring a new satellite internet system for this expedition, managing IT and networking, and providing technical support to my colleagues.

Challenges and Innovations

Working in Antarctica comes with its share of challenges. The unpredictable weather, icy terrain, and limited resources required creativity and problem-solving. I designed and fabricated a VHF 5-element Yagi antenna using a wooden plank and aluminum tubes to enhance communication. I repaired and configured VHF repeaters, improving long-distance communication, and played a key role in extending communication range in both Maitri and Bharati stations.

Memorable Moments and Achievements

The bonds I formed with my fellow expedition members are lifelong. The polar nights, with their clear skies and stunning views of the Milky Way and Aurora Australis, left a lasting impression. I am proud of my contributions, including the successful installation of VHF repeaters and satellite internet, which allowed team members to stay connected with their loved ones.

Reflections and Personal Growth

This expedition changed me profoundly. I became more patient, started learning Russian and German, and developed better interpersonal skills. Extended periods without internet provided a much-needed social media detox, fostering mental strength and a love for my own company. Overall, I returned from Antarctica a better and stronger person, with a network of new friends and unforgettable memories.

Conclusion

Being part of the 42nd Indian Scientific Expedition to Antarctica was an incredible journey. It was a privilege to serve as a radio operator, supporting the scientific mission while exploring a unique and challenging environment. This experience will continue to shape my life and career, reminding me that with passion and determination, the possibilities are boundless.



THE AT25KVD KARGIL EXPEDITION

HAMS HIGH IN THE HIMALAYAS

India celebrates **KARGIL VIJAY DIWAS** (KVD) every year on 26th July to observe India's victory over enemy infiltrators in the Kargil War in 1999. As 2024 is the Silver Jubilee (*Rajat Jayanti*) year of KVD, the Indian Army's "Forever in Operations" Division of Integrated HQ, Ministry of Defence in coordination with the Wireless Planning & Coordination (WPC) Wing under Ministry of Communications, Govt. of India invited Amateur Radio Clubs to be part of the KVD celebrations.

The mission was to set up and operate HAM radio stations at a military location, about 14,000 ft (*4,250mtrs*) high in the Kargil area of the Himalayas, and spread the message as per the theme of KVD

Mumbai Amateur Radio Institute (MARI) VU2BPA, a most active amateur radio club from Mumbai, Maharashtra, enthusiastically accepted the invitation, sparking a wave of excitement as a core group of MARI Hams came together to meticulously plan and prepare for the upcoming adventure.



IHere is the story of Team MARI's mission, Kargil:

The Team: 4 seasoned Hams confirmed their participation on the proposed dates

Dates: April 8th to April 19th



Logistics: it was decided to fly from Mumbai – Delhi - Leh and then by road to Kargil (approximately 225 km)

Gear: Survival outfits suited for high-altitude, challenging conditions of the Himalayan terrain with its frigid temperatures and rugged landscape was sourced.

Special Callsign: WPC allotted a special call sign AT25KVD to MARI for operating from Kargil.

THE GEAR:

RADIO: ICOM IC-7300, ICOM IC-718 SWR METER: LDG, Daiwa TUNER: LDG, MFJ AMPLIFIER: FURUNO MICROPHONE: ICOM-SM-50 ANTENNA: ENDFED 10-40M COAX: LMR-400 HEADSETS: HEIL SOUND PRO 7 MAST: SPIDERBEAM POWER SUPPLY: DIAMOND, SS-30DV BANDPASS FILTERS: 403A PATCH CORDS, ETC.



The AT25KVD team making sure to pack the equipment for getting ready for the expedition

Thrilling Operating Experience

Kargil is located in the Great Himalayas and is part of the Union Territory of Ladakh. This territory is the northernmost part of India near the Line of Control (LOC) between India and Pakistan. The area is known for its rugged terrain and stunning landscapes with snow-covered mountains and deep valleys.

MARI was the first club to operate from this operating location. Since the terrain and operating conditions were unknown, the team carried all types of radio gear to deal with every eventuality – such as, portable Masts, Long Wire Antennas, Bandpass Filters, Antenna Tuners, SWR Meters, Antenna Analyzers, Coax Cables, Power Supplies, etc., and, of course, Transmitters. All this required some heavy lifting as it weighed approximately 150 kg and was packed securely in specialized boxes/bags as it had to withstand the rigors of the journey.







With its frigid temperatures and rugged landscape, Kargil provided a challenging backdrop for this unique amateur radio operation. It was set at approximately 14,000 ft (4,250 meters), where every breath was laborious, making every Phone DX contact rewarding for our efforts.



Indian tricolour on the Spider beam mast with Myantenna EFH W-4010 Multiband End Fed Half Wave Antenna

Due to restricted working hours, the team could work only during daylight, when bands were seldom open, and strong QSB when signals did reach. We connected with the world from a makeshift shack in an actual stone-built bunker kept lukewarm in the snow by a kerosene heater on the mountaintop. The radio equipment, chilled by the sub-zero Himalayan air, buzzed with life as makeshift antennas' signals reached the mountainous horizon. Each contact made was a testament to the technical prowess

and spirit of the amateur radio community. The message was spread to commemorate the cultural diversity in Kargil while saluting the gallantry of the people of Kargil and the Indian Army in defending the nation. Here's a breath-taking view of the Himalayan mountain range:





The operation had its challenges. We battled harsh winds, sudden temperature drops, and the physical toll of high altitude. Yet, our dedication was unyielding, mirroring the unwavering determination of the armed forces whom we came to honour.

Connecting with the World

We operated on the 10M, 12M, 15M, and 20M bands utilizing simple end-fed wire antennas. These bands provided diverse propagation conditions, allowing us to make long-distance contacts and enhance our DXing experience. The end-fed wire antennas, despite their simplicity, proved highly effective in reaching stations worldwide, contributing significantly to our progress.



From left VU2LOC & VU2CWB operating from Indian Army bunker

Through 500+ QSOs, contacts were made with 60+ countries across continents, with each QSO (contact) contributing to the expedition's success. The radio waves carried more than callsigns they carried stories of bravery, remembrance, and the indomitable human spirit. Here's VU2HOT and VU2IVV operating the station







Conducting daily health checks is a crucial responsibility should red by the Indian Army

The expedition, coordinated with the Indian Army and supported by various organizations, also served an educational purpose. It provided real-time lessons in geography, physics, and communication technology to schools and university students and aimed to spread awareness about the amateur radio hobby. It was very gratifying to see the students' faces filled with thrill and fascination when they had the practical experience of listening to QSOs.

Jawahar Navodyaya Vidyalaya (JNV), Khumbathang, Dist. Kargil was established in 1988, about 27 km from the District Headquarters in Baroo. The school is a fully residential, co-educational school affiliated with CBSE, New Delhi, with classes from 6 to 12 standards. It is surrounded by hills and a lush green valley on the banks of the Suru River, which gives it a stunning and scenic look.



Ham Radio News



The University of Ladakh was established in 2019 and is the only trans-Himalayan Institute of higher learning and research. The university has campuses in Leh and Kargil; and 6 constituent degree colleges.



Reflections at High Altitude

As the expedition wrapped up, we took a moment to reflect on our experiences against the majestic silence of the Himalayas. We had set up a successful radio station and gained firsthand knowledge of operating in one of the most challenging environments on earth. We also fostered a deeper connection between the amateur radio community and the proud legacy of Kargil's heroes.

We will be ever grateful to the Indian Army for hosting us, to the people of Kargil for their warmth, and to the HAM community for responding to our call.

THANK YOU

We could only achieve success with the support of our local HAM OM VU2YYE Jaideep Chanda. We want to express our special thanks and gratitude to VU2YYE, who supported and contributed to our successful Kargil expedition. VU2YEE is currently located in one of the rarest grids in India (MM74xj). He endeavours to manage his busy schedule while attempting to operate on all the modes.



We extend our special thanks to the organizers of this expedition, whose meticulous planning and execution made our success possible.

- Ministry of Defence, india
- Indian Army
- 'Forever in Operations' Division
- Corps of Signals
- Ministry of Communications, Govt. of India
- Department of Communication (DoT)
- Wireless Planning & Coordination (WPC)



From left VU2HOT, VU2YYE, VU2IVV, VU2CWB AND VU2LOC at VU2YYE's shack





A dedicated HAM from Gujarat successfully conducted solo Summit On The Air (SOTA) along with training on disaster readiness in disaster prone remote area of Kutch in Gujarat.

To create awareness in disaster prone areas of Gujarat like kutch along with creating readiness of HAMs to aid in communication failure, myself - Nanubhai Nadoda (VU3OZW) embarked on significant journey to carry out solo expedition –SOTA (Summit On The Air) on hill called Bokadgado of Khadir bet in Kutch district of Gujarat state. The place is 40 Kms from Pakistan order aerially. Along with summit my purpose was to impart comprehensive training on **Search and Rescue** to the students of primary and secondary schools of this area as earthquakes are very frequent in this area. In spite of facing the challenges of remote and odd location, this enthusiastic HAM has showcased the spirit of awareness and use of HAM radio when conventional communication means are compromised.

Selection of the place:

As per my tendency to find new place for HAM radio fields expedition every time, after long search I decided to activate my SOTA at Bokadgado ,Khadir bet in Bhachau Taluka in Kutch district of Gujarat State. Due to connecting holidays I decided to activate the SOTA from 11-12 April 2024.There is an Ashram Shala in Ratanpar village, I blended two activities together first to activate SOTA and second to provide comprehensive training of capacity building for the disaster to the students of RamkrishnaDev Vidhyalaya . It is a fully residential free of cost school for the students from very weak weak financial back ground. It is run by Aarati Foundation, Mumbai.



Exact site of the expedition: Hadi Bhadanag Dada Temple, Bokargado, Khadir Bet



About the Place- Khadir Bet

Khadir Bet *(Bet means island)* has an area of about 313 Sq. Km and is disconnected from the rest of the Kutch region. There is only one main 40 km road which runs west to east, across the island. Although it is not far from Bhuj, which is the main town in Kutch, access to the island is from its eastern end. The access from the western end, which is closer to Bhuj, is still under construction.



The northern part of the island is a ridge : The highest peak is Bokadgado (930 feet ASL)



This road connects Khadir with Khavda. The white desert on both the sides of road



Khadir Bet is connected to the mainland by a strip of road which is surrounded by the Rann of Kutch lake on either side. For most part of the year, this lake is dry and reveals the salt bed.

Apart from Dholavira, Khadir Bet has offerings for the nature lover. Flamingos can be found in plenty. Other birds, such as painted storks, larks, red-vented bulbuls, hoopoes, lapwings etc are found in abundance. We saw a lot of flamingos on the strip of road connecting mainland with the island. There was also a place marked as Flamingo Lake close to Dholavira, on the map.

The island also has places with spectacular views. The northern part of the island is a ridge, and Chippar Point is the most popular viewpoint. But an even more stunning location called Bokkado Ghat exists, and it can only be accessed by a four wheel drive/tractor. This location has a temple of Hadibhadang Dada which is deity of local pilgrims. Near Bokaddo Ghat are a set of musical rocks called "Saptsur Shila"

Summits on the Air (SOTA) is an expedition for radio amateurs and shortwave listeners that encourages portable operation in mountainous areas. SOTA has been carefully designed to make participation possible for everyone – this is not just for mountaineers! There are awards for Activators (those who ascend to the summits), Chasers (who remain in the warmth of their radio shacks) and Short Wave Listeners. Activators will need a radio station that is portable – operation from cars is not allowed! All bands and modes may be used and there are now many lightweight radios which are ideal for mountain topping.



Unfurling of tricolour on summit



10/20m Inverted Vee antenna



After reaching Ratanpar village, Our friend and social worker Mohanbhai Ahir was ready with a warm welcome. Soon we erected the HF and VHF antennas. It was quite windy, still we got the antennas ready and tuned them with Nano VNA. I used 100 AH Lead Acid battery for power supply.

The following are equipment were used by us in the field

Kenwood TK-80 HF 100 watt VHF Transceiver

ICOM IC 2300H 65 Watt Transceiver.

Baofeng Handy Dual band 4 watt

Nano VNA Antenna Analyzer and Diamond SX-600 SWR Meter

Antennas HF 1. 20/10 Meter on same feed and at right angles on 15 feet bamboo pole VHF 2. Diamond SG7900 high gainer antenna with four radials of 50 Cms each

In total I made 45 contacts. Out of which 32 in HF and 13 in VHF. Among 32 HF contacts, 17 contacts in DX land while 15 contacts in VU land in different bands of HF

Band Conditions

The location was free from any hustle and bustle. It was calm and serene throughout I I could hear many weak stations which usually I don't hear in city area. Band conditions for VHF and UHF was extra ordinary and I made contact with DX stations at distance of 400 Kms with 10 Watt of power. The location is surrounded by saline desert from three sides and stretching for more than 30 kilometers, the band conditions were favourable on 10 and 15 Meters HF. Australia was roaring from here and I could make contact with 4 Australian stations in 25 Watt on 10 Meters. I contacted the special event **station AT25KVD** located in Kargil to commemorate 25 years of our glorious victory in Kargil war of 1999. 10,20 & 15 Meter opened around 4.00 PM and lasted till 8.00 in evening. I could get rare station of South Korea which I never get in dense city area.

Search and Rescue training for the students of Ramakrishna Dev Vidhyalaya was part of my SOTA activity along with Use of HAM radio during emergency. So on both the days of 11 & 12 April 2024, I provided hands-on training of Search and Rescue to the students of local school. It is a fully residential school run under CSR fund of Aarati Foundation, a renowned enterprise in the field of chemical engineering.

We made QSOs with nearby HAMs from our location. Also demonstrated emergency communication with hand held 5/8 vertical antenna. and readily available car battery with 10 watts. Students were curious to know about HAM radio. Each student kindly enjoyed the beauty of HAM radio by making QSO with each other going very far distance using VHF handy. Also demonstrated how to make antenna and



prepared for emergency communication. It was really Field Day in every sense. All the students were fascinated to see our set up. I had carried some printed four colour QSL cards to give those HAM s who visit the site personally and also to QSL the contacts who demand after the event



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VU2IBI - DXCC #300 MIXED

A DXing Milestone reached #300 DXCC confirmed on LoTW

When I first started my HF operations in the late 90's with an inverted 'V' and no idea of DX clusters, propagations and DXCC achievements, I used to tune the 40m band from one end to the other to find any station on the air and tried to work them if heard with my un-tuned antenna. This was my regular practice twice in the day. This was because I was not in touch with local HAM's to discuss about Ham Radio.

Later in the year 2016. I was exposed to the possibilities of records and achievements in Ham radio through old timers and Elmer's. This was a period when I upgraded my call to General Grade changing my call from VU3PRH to VU2IBI in order to use the higher power permitted to VU2 call signs. I also upgraded my antenna to a 6-element tribander Yagi. I spent hours every week with friends to exchange ideas for bettering station capabilities like CAT connections, N1mm, FL-Digi, DX Keeper, Logger 32 and other software usage.

QSO's on Digital modes was possible in spite of propagation being poor during the low ebb of the Sun cycle. I started chasing New Countries (DXCC's) from 2017 and tried to work ATNO's (All time new ones) which was contradicting to my past operations working many Russian and European stations.



I stared with #275 Dxcc in January 2023 and targeted to achieve a personal dream of #300 by end of 2023 which was possible due to the improved solar/propagation conditions and many DX expeditions. My #300 DXCC was HQ9X form Honduras 16326 Kms from my QTH on 15m in the CQ WW CW Contest. Now I stand in the top 8 all time VU standings

I must thank the members of the VUDX group whose spotting assistance helped to achieve my personal dream a lot faster.

Happy Dxing – de Prakash (Kash) Srinivasan – VU2IBI

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PUNE HAMS – VU2RCP - CELEBRATE WORLD AMATEUR RADIO DAY 2024

Every April 18, radio amateurs worldwide take to the airwaves in celebration of **World Amateur Radio Day.** It was on this day in 1925 that the International Amateur Radio Union was formed in Paris.

World Amateur Radio Day 2024 – IARU is very pleased to announce the theme of: "A Century of Connections: Celebrating 100 years of Amateur Radio Innovation, Community, and Advocacy". IARU celebrates its centenary in 2025. Since its founding in Paris, France, IARU has worked tirelessly to promote innovation in amateur radio and to encourage the growth of the service in communities throughout the world.



Pune Hams celebrated **World Ham Radio day** on 18th April 2024 at Giristhan Prashala And Junior College Mahabaleshwar . Thanks to Mr Parimal Dave, Principal KB Dhanak & Teacher Ms Vaishali Pawar madam for sparing 9th & 11th std students.



REVA UNIVERSITY AMATEUR RADIO BOOT CAMP 2024

in association with – The INDIAN INSTITUTE OF HAMS, VU2IIH - 30th & 31st March 2024

LOCATION: YELAGIRI HILLS, TAMIL NADU, INDIA

The Amateur Radio Boot Camp for REVA University, School of Electronics and Communication Students was conducted successfully, offering students a comprehensive introduction to the world of amateur radio operations. The event aimed to provide students with practical insights into various aspects of amateur radio, including VHF and HF operations, both voice and digital modes, erection of antennas, and radio direction finding.

Activities:

VHF and HF Operations Students were given hands-on experience in both VHF and HF operations, enabling them to understand the intricacies of radio communication across different frequency bands. They actively participated in voice and digital transmissions, gaining practical knowledge of signal propagation and modulation techniques.



During the educational trip to the Yelagiri Hills, we gained valuable insights into analog and digital communication utilizing HF and VHF frequencies. I would like to express my gratitude to Dr. R Venkata Siva Reddy sir for organizing this enriching experience and to the dedicated individuals at the Indian Institute of Hams for their efforts in making this trip successful. The knowledge and practical exposure received during this trip have been truly enlightening and have deepened my understanding of communication technologies. Thank you for a memorable and educational journey. Regards Kadiri Akshaya.



2. Antenna Erection: The boot camp included practical sessions on erecting antennas, where students learned the importance of antenna design and placement for efficient radio communication. Through guided exercises, they gained insights into optimizing antenna performance for various operating conditions.



3. **Radio Direction Finding (Fox Hunting) :** A highlight of the event was the radio direction finding activity, commonly known as fox hunting. Students enthusiastically engaged in locating hidden transmitters using directional antennas and receiver techniques. This activity not only honed their technical skills but also fostered teamwork and problem-solving abilities.



Thanks Dr. SP for the opportunity. It was a refreshing experience to be part of the Reva bootcamp for Amateur radio. A weekend well spent discussing, explaining radio propagation. Cherry on the cake was the foxhunt with the. students.

73 de Nandu, VU3UBN





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