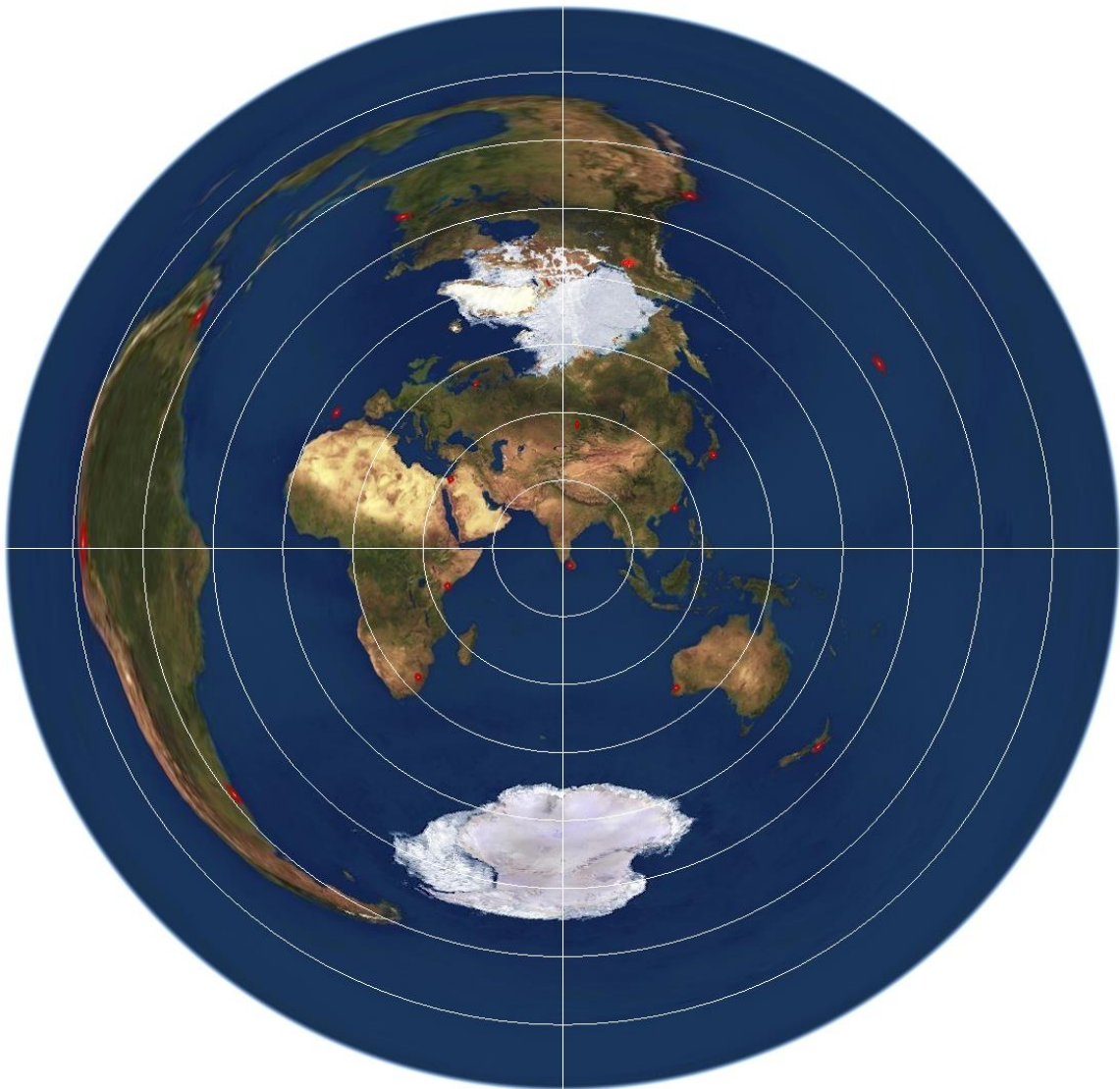


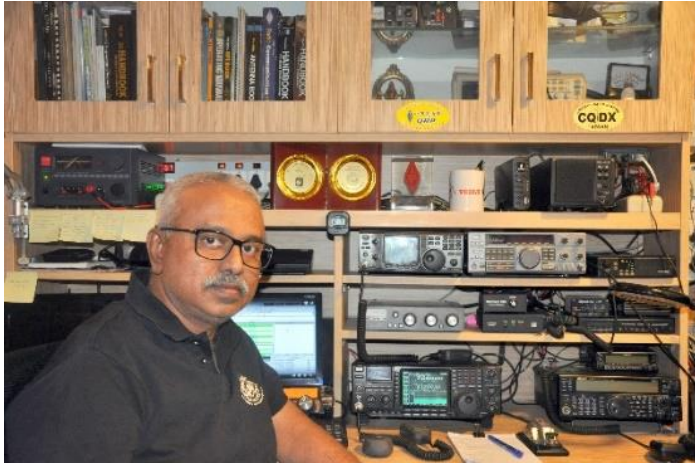


Newsletter of the Amateur Radio Society of India - VU2ZH  
Indian Affiliate of the I.A.R.U  
October 2024 issue



**RINGS ARE 2,500 KILOMETERS APART**

## PRESIDENT'S MESSAGE



### Season's Greetings from ARSI

The festive season has just started and we are bound to see everyone in a celebrating mood, for the next three months. ARSI wishes everyone a Happy Dasara, Deepavali, Christmas and New Year Celebrations.

During the last weekend of Sep'24, ARSI just concluded its first VU-DX Contest. The ARSI Contest Team's effort in organizing and propagating this contest across many DX-forums worked out well, with a good participation by the Indian and the DX hams. The contesting zeal among VU Hams is slowly picking up and we may see an increase in VU participation in the upcoming CQWW SSB & CW Contests during October & November 2024 respectively.

We are looking forward to the ARSI 40M CW Contest in December, which will be the last ARSI contest for the year 2024.

The 19th IARU-R3 Triennial Conference is being held in Bangkok from 4 to 8 Nov 2024. The last conference was held as a virtual event hosted from Bangkok due to COVID-19. ARSI, the member society of the IARU-R3 from India, has just submitted the conference document and is looking forward to an active participation in this conference.

We are hoping that the Indian Radio Amateurs may see some radical and welcoming changes as an outcome of the following publications.

- The National Frequency Allocation Plan-2022, published by the WPC, Govt. of India, Ministry of Communication, Dept. of Telecom
- The Telecommunications Act, 2023, published on 24 December 2023

- Draft Gazette Notification, Telecommunications (Amateur Station Operator) Rules, 2024, published on 24, July 2024

ARSI has reviewed the above publications and has submitted suggestions / revisions based on the feedback from various regional clubs, associations and individuals across India. The final notification is expected to be published before mid-2025.

Looking forward to meeting you during the HamfestIndia in December 2024.

**73, de Ramesh Kumar VU2LU**

### FROM THE EDITOR'S DESK



Season's greetings to all!

The highlight of the last quarter was the **VU-HF contest** that was held on 28/29 September. Total of 54 participants, 40 of which from VU and 13 DX entries, one check-log. That's good for a start; I am sure the numbers will increase in future years.

Solar activity is revving up – with solar flares and CMEs arriving almost on a daily basis. In fact, On **October 3, 2024**, the Sun emitted an exceptionally **powerful X9.0** solar flare. This event now stands as the most intense solar flare of Solar Cycle 25 as also the *most powerful solar flare seen in the past seven years*. It was earlier predicted that the solar max will be sometime in 2025, but the updated prediction now calls for current Solar Cycle 25 to peak between January and October of 2024, with a maximum sunspot number between 137 and 173. However, Solar Cycle 25 reached the highest Sunspot Number in over 20 Years – it stood at 299 on August 08 a lot beyond what was predicted. This activity has resulted in several *radio blackouts* on the HF bands.

**In a joint statement on Oct. 15th, NASA and NOAA announced that the Sun has reached the Solar Maximum period in its eleven year solar cycle # 25.**

*On October 09, the CW net was on 7015 as usual but after about 17 or so check-ins, by about 08:00 hrs local, the band just folded - with all the stations fading out. This lasted for about an hour or so. This was probably the result of a powerful X1.8-class solar flare unleashed Oct. 8<sup>th</sup> with the sunspot number standing at 165. That was a new experience for many beginners who were on the air.*

The HAMFEST INDIA 2024 is being held in Kolkata between 14<sup>th</sup> and 15<sup>th</sup> December. Hoping there is good participation and the event will be an enjoyable one for all.

73 and my best wishes to all!

**Ganesh VU2TS**

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## RAJKOT, GUJARAT

A special workshop on **'Wireless Technology and its Practical Solutions'** was conducted for the *Rajkot Police Wireless Department at Gujarat (India)* on 20th July 2024. The venue was the Police Training Center at Rajkot Headquarters. It was a highly informative 3 hours session from 10:00 AM to 1:00 PM.

Regional Coordinator of AMSAT-INDIA & The Amateur Radio Society of India, *Rajesh Vagadia, VU2EXP* gave insight into various Radio Communication protocols, types of modulation, modes & various applications used in Amateur Radio & Police department.

As this workshop was targeted for 25 technical wireless officers & radio operators, the focus was on the radio communication enhancing methods, utilizing various techniques, using different antennas for specific applications and diagnosis of wireless setup with various measuring instruments incl. SWR/Power Meter, NanoVNA/Antenna Analyzer. A handful of maintenance tips for Radio, Antenna, Feed line & repeaters to optimize radio communications was also extended.



An overview of Ham Radio & its various events, understanding of Digital Communications, Satellite Communication, Features of newer Digital protocol

including. DMR, D-STAR & Fusion was also presented. There was good interaction with the participants, lots of doubt & queries were cleared satisfactorily. A good number of radio gear was displayed including HTs, VHF Base Radio, IC-705 SDR HF Radio, RTL SDR Dongle, Antenna Tuner, CAT Control, Soundcard Interface, Morse Key, CW Paddle & Keyer, CubeSat model, Balun, LNA, SWR/Power meter, Nano VNA, Dummy load, PSU, Feed lines, EFHW Antenna, Telescopic Antenna, Connectors, Adaptors, ARISS Awards, QSL Cards etc., which helped participants to view, discuss & understand the subject in the best way.

Normally, practical demonstrations are given, but here in the audience was a heavy user of CW & RT from the Police Department – *a professional* - so the demonstration was cancelled, HI. However, demonstrations of Digital Communication - sending text messages between two VHF Setup and a second demo of sending SSTV Images between two local vhf stations – were provided. For the audience it was interesting to learn how we ham convert simple ASCII codes to corresponding audio frequencies (for Digital Communication) and RGB pixel values of Image to Slow Scan Television format to transmit & receive 'IMAGES' via our standard radios! That's why we proudly refer to Ham Radio as ***the oldest social media!!***



It was a nice & fruitful workshop overall. I am thankful to Commissioner of Police Rajkot Shri Brajesh Kumar Jha Sir for approval of this workshop and Shri S K Jadeja Sir (PI Wireless) for nicely coordinating this workshop. I am thankful to our AMSAT-INDIA &

The Amateur Radio Society of India, for their great support and guidance in making this workshop highly successful.

It is hoped that The Rajkot Gujarat Police will utilize the gained knowledge & implement it into the system for better productivity!

Thank you 73

**Rajesh Vagadia VU2EXP**  
Rajkot - Gujarat

Regional Coordinator

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## The 1924 Martian Signal



In August 1924, the U.S. Navy imposed a nationwide radio silence for five minutes each hour to allow observatories to listen for signals from the planet Mars. This i



initiative aimed to capitalize on the planet's close alignment with Earth at the time, sparking intrigue and excitement among astronomers and enthusiasts alike.

A dirigible (*airship*) equipped with radio equipment took to the skies to monitor potential Martian messages. The excitement peaked when a series of dots and dashes captured by the airborne antenna suggested a "crudely drawn face." Some scientists speculated that this could be a signal from a Martian civilization, igniting a media frenzy. Yet, sceptics, including inventor C. Francis Jenkins, suggested these results were merely a case of radio frequency interference..

*Based on an article in "Amateur Radio Weekly"*



The big weekend for Scouts around the world was [Jamboree On - The - Air \(JOTA\) and Jamboree On - The - Internet \(JOTI\)](#) - the world's largest Scouting event. The three-day event ran from October 18 to 20, 2024 using amateur radio and the internet to connect Scouts worldwide for a full weekend of on-air and online activities that promote friendship and global citizenship. In 2023, JOTA/JOTI had a record 600,000 registered participants, a 40% increase compared to 2022, and included 7000+ Scout groups and tens of thousands of individual participants from 149 countries.

When Scouts contact each other by amateur radio, the stations are operated by licensed amateur radio operators. Many Scouts and their leaders hold licenses and have their own stations, but the majority participate in JOTA through stations operated by local radio clubs and individual radio amateurs. Some operators use television or computer-linked communication. This technology offers Scouts the exciting opportunity to make friends in other countries without leaving home.

Since 1958, when the first Jamboree-on-the-Air was held, millions of Scouts have met each other through this event. Many contacts made during JOTA have resulted in pen pals and links between Scout troops that have lasted many years, not forgetting new amateur radio stations.

Several VU2 stations had put up special portable stations to operate Jamboree-on-the-air 2024 with hundreds of scouts and guides participating.

Ed/



## My experience at JOTA-JOTI 2024 20<sup>th</sup> October 2024 VU3GLJ - Bharath M. Palavalli

In the third full weekend of October each year, The Bharath Scouts & Guides organise a Jamboree on the Air together with a Jamboree on the Internet ([JOTA-JOTI](#)) which aims to connect scouts all over the world using amateur radio. I heard about the jamboree at the meeting of the local amateur radio club, [Bangalore Amateur Radio Club \(BARC\)](#) on 13th October, 2024. They meet on second Sunday of every month at the Bharat Scouts and Guides Head Quarters in Bangalore. I was curious about the experience of setting up a station in the field and thought it could be a learning experience for me.

The organising HAMS had worked a detailed plan in terms of the presentations to the Scouts & Guides, the bands and times at which the on-air calls would take place, the number of stations, the frequencies at which they would operate, the different antennas<sup>1</sup> and radios that would be part of the set-up, etc. The group was planning to operate out of three Scouts & Guides locations in and around Bangalore. I was with them at the Bharat Scouts and Guides Camp in Dr Annie Besant Park at Doddaballapur - **Grid MK83sg** - which is roughly 40kms from Bangalore.

I joined the group on their call to discuss logistics, and while some of the chatter on the call sounded like Greek & Latin to me, there was some comfort as the event planning reminded me of my morning QTH. On the day of the event, VU3LLC was kind enough to offer me a ride, and we had some of the *fluffiest* Idlis I have had in a while for breakfast at a small little roadside eatery along the way. We reached there to find VU2TBU, VU2MYS, VU3CQM and VU2MZJ practically pulling into the arch at the entrance at the same time. This was a venue that was familiar to the HAMS as they had organized many events there in the past and they have a working relationship with the Scouts (the [fox hunt](#)<sup>2</sup> in July, 2024 being the latest and the one I had observed as an SWL).

As we waited for the Scouts to begin their morning routine, VU2TBU decided to use the time to very kindly help me learn how to raise an antenna, and we ended up using a conifer for an end fed sloper HF antenna. It was wonderful to hear the ragchew on multiple frequencies in the HF band (*we managed to hear a bunch of folks from Kerala*) as my on-air time was restricted so far to local nets. VU2TBU was familiar with most of the HAMS on the air, and they gave us a glowing signal report.

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1 As with all new people entering the world of amateur radio, I went down a rabbit-hole to figure out antennae vs. antennas. Read these [two articles](#) to know how other folk are reacting to it.

2 Fox hunt is another term used for Amateur Radio Direction Finding or Transmitter hunting, where HAMS have to find a hidden transmitter using directional antennas. The hidden transmitter is called a fox, and hence the term foxhunt. At some time in the future, I'd like to track down the etymology of it being called a fox and the links to the legacy "sport" of fox hunting.

VU2TBU gave us a quick master-class in setting up a mobile station and the oddities to look out for. We were even able to hit the repeaters in Bangalore with some of our handies, and listen on DMR while we were at it. As we were chatting away, VU3NZG, VU3EFZ and VU2GRM arrived at the venue.



*HAMs helping with setting up VU2MYS's set of antennas designed with careful consideration for one man operation and portability*



*Station 1 – operating out of the back of a car with a sloper antenna for HF operations*

Even with the threat of rain, we decided to use the open ground to set-up the stations as it might pique some Scouts' interest if it is around their other activities. At this time, VU2MYS began opening up his wonderfully self-contained set of antennas and rig and we helped him raise a vertical antenna. As he brought out a dish to mount, I was told that it was to contact the QO-100 satellite (which in itself was an exciting prospect). In the meantime,



*VU2EXO and VU2MYS Setting up the QO-100*



*Scouts making contacts on the HF mobile station*

VU3NZG brought out his box of goodies, a really-well-designed go-kit with a Yeasu set up, vertical ATAS antennas, VU3EFZ then helped him set-up another station. VU3NZG also captured some drone footage of us raising antennas and setting up the station. I helped both of them raise another sloper end fed HF antenna between two trees.



:VU2GRM making a QSO with a DX contact on VU3LLC's sBitx v3 under a shelter, as VU3NZG and VU2MZJ look on.



A demonstration of Mobile Radio station and scouts making contacts

As smaller groups of scouts trooped in, VU2GRM and VU2MYS began briefing them and with the help of VU2TBU got them on the air on the HF bands! They chatted with their fellow Scouts who were on the air at other Scouts locations with similar HAM stations, and with HAMS on the HF net from other parts of the country who answered their calls. Some of the scouts were curious about how the antennas work, how transmission happens, and the strange language and code that HAMS used on the air. There were the mandatory questions about the relevance of amateur radio in today's day and age when mobile telephony and internet are omnipresent.

As the Wx<sup>3</sup> changed, we had to temporarily shut down the HF station (due to rain and the chances of lightening in the vicinity). VU2MYS and VU3CQM walked the scouts through a presentation (Yes, there were the *mandatory* set of slides 😊) about amateur radio.

We took a break for a sumptuous lunch and the well-oiled machinery at the Scouts camp served food for the 700 odd folk there with an evident ease. As we waited for the next sessions to begin, VU2MYS gave me a description of his super cool experiment to contact QO-100, and VU3LLC talked about various UHF set-ups. In the meantime, VU3TBU had dismantled the first conifer supported antenna and had raised another one closer to a sheltered space, which meant we could continue even if it rained. I was then able to experience VU3LLC's [sBitx-V3](#) in action, given the extensibility, open-source nature and SDR presence, this is a radio that I wish to

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3 Wx is short for weather in HAM-Speak



acquire at some point in the near future. We made a DX contact with the radio and antenna at this location and continued some experiments.

As the scouts arrived, the station set-up in the open ground was activated and we continued interacting with scouts. At this point, VY2MYS and VU2EXO (who arrived after lunch) began setting up the antenna for the QO-100 satellite with the dish, LNB and RTL-SDR. The scouts were excited by the possibility of "speaking" through a satellite "on-demand" and so was I. As we did expect another downpour and with the travel the next day for my morning QTH, I reluctantly joined VU3LLC and VU2GRM as

we headed back to Bangalore. I did regretfully miss out on the DX QSOs that they made with the help of QO-100. We bore witness to yet another famous traffic snarl on the roads of Bangalore on our way back. VU3LLC and VU2GRM were wonderful company on the way back with their stories to keep us company on the road. VU3NZG had a little surprise for me, he had carried the **Baofeng UV-5R** as a gift for me that he had fully set-up.

It was a wonderful learning experience for a newly minted HAM like me and I'd suggest that folks find a friendly local club and participate in as many events as possible. It would be the easiest way to meet fellow HAMs, see their equipment and set-up, watch them in action and just soak in the experience.

73, Bharath VU2GLJ

## INTERNET VS HAM RADIO

Many old-timers say that the Internet is ruining ham radio. **Echo Link** - for instance. Guys are making long haul DX contacts without using a rig or antenna! All you need is a smart phone! If you use a HF transceiver hooked up to an antenna, then you just check on the net and the DX Cluster / DX spots to see who is on the air - and if there is someone that interests you, then you switch on your rig. But I do it the old-fashioned way. I scan the bands and if there is a pileup, I patiently listen to see who is causing it. Remember you need give your callsign only once in ten minutes - so the guy is like 599TU and listening for the next caller. The internet may tell you which is the best time to call him - but it is no big deal- a thirty-minute (*OK sometimes an hour*) calling him works just as well, HI. And, it is more fun – especially if you are competing with half of Europe!!

Nowadays, digital modes are becoming more popular. A time may come when a newcomer may ask "CW - what is it?" You cannot blame them - there is no CW test for getting a licence. *A CW net was started on 20 meters, and was stopped after about a fortnight of activity. Reason? No takers. There were just two or three check-ins!!*

Enough of my rambling...but do let us know what is your take on the subject!

de VU2TS 73

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