Ham RADIO News

Newsletter of the Amateur Radio Society of India (Indian Affiliate of IARU)
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VU2JPN, VU2BPF & VU2GFD - Hill Top location. Kalsubai, dist. Ahmednagar, Maharashtra

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President's message

In the last issue of HRN I had mentioned that copies of letters dealing with the several issues we had taken up with WPC were handed over to the WPC officials at the HFI Bengaluru. True to form the officials were shifted soon after HFI and so we can be reasonably sure that nothing was done! This is typical of what has been happening year after year,

We will continue to make approaches to WPC and the department of Telecom on our issues

The distribution of QSL cards to a large number of recipients was done very efficiently at HFI. Sadly our QSL Manager VU2LBW OM Lucky - who had single handedly managed to sort and pack the incoming cards - has taken a decision that he is unable to continue. VU2LU OM Ramesh has kindly offered to take on the job. The QSL Bureau address is his QTH anyway. A number of local hams have offered to help in the sorting and packing.

The management of the ARSI Members - only e-group - has also been handed over to VU2ETS OM Saravanan, as Lucky did not want to continue doing it.

Thanks to all for taking on the responsibility.

The Hill Topping contest also did not work out very well as WPC, without any notice, introduced a requirement of change of QTH being permitted only if letters of permission were submitted from the owners of the property. This was never done all these decades and as many were going to random hilltops where no one was available to grant permission, it became impossible for many teams.

We have to work out how we go about it in future.

Later this year the ARSI AGM will take place and new set of office bearers will be elected

73

Gopal Madhavan VU2GMN

From the Editor's Desk

Members were quite enthusiastic about the Hilltopping contest. Such events provide the much needed experience to the newcomers while at the same time letting them to learn to work as a team, not forgetting the technical side – like putting up the antenna, finding out a proper location for it and so on and working the station.

Unfortunately the WPC came up with a seemingly impractical provision – that of obtaining a "No Objection Certificate" from the owners of the property on which the proposed field day was being held.

I say this is impractical because, if we were using the roof of some building other than the official QTH of the station, then it is quite in order for the authorities to demand a no objection certificate from the building owner or resident. However, the whole idea was for the competing teams to move to a remote location like the top of a hill or mountain where there is no population or civic comforts, and establish a portable station for the two day activity. Such locations are not 'owned' by anyone, and are considered 'government property' – and the only authority who can provide a NOC is the government itself – to whom we have applied for the permission to hold the drill in the first place!

Common sense tells me that once the exact location is mentioned in the application for the temporary QTH that should take care of the permission needed – as has been done all these years, unless of course, the operation is planned from some private property – in which case, an NOC from the owner is justified.

I hope we will be able to convince the WPC and make future hill-topping events easier to organize and work.

73, Ganesh VU2TS

LAMAKAAN ANNUAL RADIO CONVENTION 2019

A big event at the beginning of the year

The Lamakaan Radio Club was started by Group of Hams; a non-profit organisation based at Hyderabad, India. The club is an association of radio amateurs and Short Wave Listeners, organised for the promotion of interest in Amateur Radio communication and experimentation and for the advancement of radio art. Madhu/VU2MUD reports:

LARC–2019 – the annual convention of the Lamakaan Amateur Radio Club held on the third weekend of January every year is an event everyone looks out to attend. This year it was on the 19th & 20th of January, 2019. This event was power packed with parallel lectures on various topics related only to amateur radio and was an excellent platform for knowledge sharing and great eyeball. There were also workshops for providing onsite and on hand guidance in building and completing radio related projects.

Like everything else about this event, the organizers opened the registrations as early as in October to allow travelling hams & SWLs to make advance travel reservations. Although I had missed it out the last time, I was contemplating attending the event this time around. I found an ideal incentive to go without fail when the organizers announced the projects for the workshop for this year's event – a tube based audio amplifier, µbitx multiband transceiver and an Arduino based antenna analyser.

The antenna analyser being a 'must have' for the shack for my antenna works and so the decision was immediately made. The registration was made immediately and passed the word to the Mysuru group to check out the possibility of making a group travel plan. Immediately Sarav, VU2ETS – who was interested in the audio amplifier and Kesari VU2MTK whos like to experiment with antenna designs wanted to join in and the registrations were made.

The quality of the organization was clear when the organizers opened a dedicated WhatsApp group for all the registered delegates to share the updates on the event. Sharath VU3RSB who was in charge of the accommodation arrangements made individual groups for delegates based on their hotel/lodge bookings. This made it easy

for all without being flooded with messages not directed at them. With all arrangements in place all that remained was to reach Hyderabad and enjoy the event.

The event organized with the support of the Muffakham Jah College of Engineering & Technology in Banjara Hills. The College management provides the sprawling auditorium for the inauguration, flea market & stalls, area for the workshops, display area for the home-brewers contest and a couple of halls for the parallel sessions. The garden area houses the breakfast & lunch.

The inaugural address was a very brief welcome on behalf of the MJCET and a minute's silence in memory of OM Dev Ramprabhu VU2DEV – a very affectionate supporter of the LARC annual meet. The talks scheduled were covering a wide range of topics. From Vacuum tube based audio amplifiers to satellite communications, almost every aspect of radio communication was covered. The prevailing January atmospheric problems caused a few flight delays leading to late arrivals or cancellation of journey of a few speakers. This was ably tackled by Farhan – VU2ESE – the main driving force behind this event.

One of the highlights of the event was the talk of the use of 3D printing for radio amateurs by OB Rayyan – VU3RYN – the 12 year old son of Farhan – who with his fluent narration held the group in captive attention. We had already been exposed to his crowd handling in 2014 during the Hamfest when he had explained about the Arduino. Sarath VU3RSB spoke about the preparations for IOTA/Dxpeditions, Working the Satellites by Prashant VU2PSQ and Building the Exseed Sat by Farhan VU2ESE to name a few.

The flea market had the BITX cabinets by VU2POP, a stall on Radio products by radiobrewery.com, Technocables with high quality RG213 & RG58 cables with UHF connectors fixed, VU2JIM with this book Gateway to Ham Radio – an all inclusive book on the hobby and preparation of the licencing examination, ARSI with merchandise and membership drive and a few other individuals selling morse keys, used radio equipment, torroids, components, kits, et al.

There was also a contest – more of a challenge - in memory of VU2DEV where in interested participants had to design a transmitter with limited components and the winner would be the one who was able to attain maximum power output.

There was also plenty of time of great eyeballs over tea and the famed Karachi buiscuits and samosas.

This is turning out to be one of the "MUST-GO" events on the ham calendar with close to 400 participants this year and growing. Will surely not miss it next year too.

Well done Team LARC – keep up the great work!

John Williams VK4JJW of the Amateur Radio Newsline writes:

One more gathering - this one in India - just concluded after more than 400 attended -on a busy college campus.

In India, the two-day Lamakaan Annual Radio Convention drew a crowd of more than 400 radio amateurs and shortwave listeners to the M. J. College of Engineering and Technology in Hyderabad. According to Thomas George of the Lamakaan Radio Club, the activity was nonstop on both the 19th and 20th of January with back-to-back sessions that included workshops, demonstrations, a flea market and a contest known as Dev's homebrew challenge.

Thomas said that the busy agenda did not include an inaugural address or speech because the organizers believed the event should be of the hams, for the hams and by the hams and, as he told Newsline: "we didn't want anything else to come in between."

He said one of the convention's highlights was a workshop in which 100 homebrew enthusiasts took part in building the Micro BITX all-band HF transceiver and the ‘Antuino’ - an Arduino-based Antenna Analyser. The youngest presenter at the event was Rayyan VU3ECQ. The 13-year-old demonstrated ways radio amateurs can make use of 3-D printers.

As for the big winner among the homebrew projects, that honour belonged to B. Sanjay Singh VU3NOV for the optical encoder he built into a cabinet.

Second prize was given to Srinivas VU2SFJ for his Raspberry Pi-based WSJT homebrew project. ***For Amateur Radio Newsline I'm John Williams VK4JJW.***

CONTEST CORNER UPDATE

ARSI's Annual event of National Field Day / VHF Hill Topping day was held on 23rd and 24th of February. Initially there were more than 12 registered to the event as field stations from Kerala to Gwalior in the north. However, for the first time WPC officials started asking for “No Objection” letters from property owners. This was not published in clarity anywhere by WPC amateur cell. ARSI's WPC coordinator Mr. V K Arya and President Mr. Gopal Madhavan sent many communications to WPC Wireless Adviser and had in person meeting. But unfortunately, officials did not honour our arguments.

As this happened in last 2 weeks prior to the event, many participants dropped out as they could not spend time to go to remote place to look for officials or because there was no knowledge of any officials for the location they are heading.

This is major setback to Indian hams who want to go out and perform technical experiments, publicize hobby or conduct emergency preparedness exercises. ARSI has sent follow-up messages to senior WPC officials about this lapse and we hope that some positive actions in the interest of advancement of our hobby will be taken. Finally, we had only 6 logs of VU field stations were received for which final ranking was declared via ARSI's group.io forum.

The second quarter of the year has some upcoming international contests ahead such as CQWPX.

As part of annual awards, ARSI invites nominations for **"VU2AJ Contester of the Year, VU2VWN Homebrewer of the Year, and Young Contester of the Year Awards"**. Members are requested to check Awards section of the ARSI website for details and nominate with supporting justification details.

73, Kiran VU2XE

Scindia School, Fort Gwalior – Madhya Pradesh

A Successful National Field Day & Hill Topping was conducted at Scindia School, Fort Gwalior on 23 - 24 February 2019. It was indeed a great achievement for Amateur Radio Club Gwalior to demonstrate HAM Radio operation to the students, authorities and teachers. A VHF contact with VU3TXI om Manoj, Etawah and VU2OO Gupta in Guna was a great success. The distance is about 125 kms and 200 kms approximately. It was direct contact using 3 Element Yagi and a base station. All credit goes to om Kailash VU3CTP and OM C.Makhija VU3UHT.

Shri Sant Kripal Singhji made a VIP visit to station. He was very much impressed to see the event being organized. School authorities appreciated that students are happy to participate in the event. Students understood the morse codes and shown their interest in learning it.

ARSI Disaster kit was displayed to show the important things, needed during the disaster. All the Students were happy to see the way satellite is being tracked.

Thanks to every one for such a nice display.

73 Jayu VU2JAU

AHMEDNAGAR, MAHARASHTRA -

Hilltopping at: Kalsubai Hills - Allotted Fq. 145.340 MHz *(Cover photos)*

Altitude: 5400 feet - The highest peak – known as Mount Everest of Maharashtra.

Date : 23/24 March 2019

Station call sign: VU2ECB (Team: VU2JPN Jaiprakash, VU2BPF Yogendra, And VU2GFD Shyam (see cover photos)

Setup : VHF/UHF Baofeng handy with 5/8 groundplane antenna Diamond dual band on 5feet mast with 3mtrs RG58 coax

HF uBitx with MFJ1899T all band whip - Powered by 12V 8A power bank; homebrew

Operating time 23.2.19 / 1100hrs to 24.2.19 / 0800 hrs

VHF/UHF worked 15 stations in and around Mumbai on given vhf frequency and could have QSO using all repeaters. With just 5w all stations could be worked with 5/9 reports

On HF we copied few stations at night but did not make any contacts

Accomodation was the tent at the peak of Kalsubai

Route to peak from base of village was total trekking with rocky climbs and steep 70 degree steel ladders. Totally non motorable route.

Temperature 16.2min to 28.5 degrees max

It was highly windy - but our antenna and the tent survived, Hi

We had a wonderful time!

Thanks and 73

de VU2JPN/Jaiprakash

Launch function of the Diamond Jubilee of BARC

The launch function of the Bangalore Amateur Radio Club Diamond Jubilee Celebrations, 2019 was held on Sunday, 13 January 2019 at the Kondajji Basappa Auditorium, Bharat Scouts & Guides Hq., Palace Road, Bangalore-560001.

Brief History: The Bangalore Amateur Radio Club was founded in the year 1959 by a small groups Radio Amateur and Short Wave Listeners. The first founder members were Sampath Kumaran – VU2YZ; Saibal Ghose – VU2SO; Sharma – SWL; Subramani – VU2SE; Shama Rao – VU2BZ & Sulu – VU2GV, all with their names starting with a "S". They were known to have been meeting in Cubbon Park, periodically. The initial callsign of the club was VU2TT, which subsequently became VU2ARC. OM Sulu, VU2GV brought out the first newsletter SIRAN – South India Radio Amateur's Newsletter. VU2YZ currently lives in Bengaluru, VU2SO is known to be living in Siliguri, West Bengal and Sharma who remained an SWL lives in Mumbai. VU2BZ, VU2SE and VU2GV are silent key.

Members may recall, the Golden Jubilee of the club was celebrated in the year 2009 coinciding with the Hamfest India 2009 in Bengaluru.

Diamond Jubilee 2019:

The idea of celebrating the Diamond Jubilee Year was conceived sometime during mid-2018. The current managing committee along with a group of members who volunteered to take this ahead have conceptualised ideas to conduct several events such as a BARC Field Day, Garden City VHF Contest, Garden City HF voice and CW

Contest, Fox Hunt and some promotional programs such as Quiz-on-Air involving Schools/Colleges, street-shows, public-demos and training interested SWLs to take up the ASOC exams. All these activities are planned starting Feb 2019 and culminating in a Grand BARC Diamond Jubilee Day & Club Night, sometime in the second-half of 2019. The Diamond Jubilee Year Celebrations committee comprise of Poru-VU2GGM, Bopanna-VU3BOP, Madhu-VU2MUD, Krishna Kumar-VU3UNO, Jagannath Jayapal-VU3JIM & Venkatesh-VU3ICC, with Ramesh Kumar-VU2LU as the Convener apart from the BARC Managing Committee which is the back-bone for all-activities.

The launch function of the Diamond Jubilee year marked the beginning of the above mentioned series of events. Dr. Justice H. B. Prabhakara Sastry, VU2QFZ was the chief guest at the function. Shri PGR Sindhia, State Chief Commissioner, Bharat Scouts & Guides Hq., Karnataka and OM Sampath Kumaran, VU2YZ were the special invities. The function started off at 9.00 am with breakfast sponsored by OM Vasudev Singh, VU3DON. At 10.00 am, the Chief Guest along with the special invitee Sampath Kumaran VU2YZ, BARC President, Vijay Yadav, VU2YVK & Vice President Chandrashekar VU3HBJ were escorted to the dias by our Secretary Kiran Kumar VU3PKE. The invocation was sung by Kum.Ruthu, our Secretary's daughter and the lamp was lit by the members on the dias marking the inauguration of the ceremony. The Secretary welcomed the gathering, followed by a welcome address by Ramesh Kumar, VU2LU, Convener BARC-DJY-2019.

The President VU2YVK also welcomed and addressed the gathering briefly. Sampath, VU2YZ spoke briefly about Ham Radio during the 1960s and how they were meeting in the initial days of the forming of the club.

Srikanth, VU2GSM who was invited to present the history of BARC, did a great job by chronologically sharing almost five decades of events and highlights about the club with reference to the old club newsletters which he had well preserved. His presentation was well documented and was very well received by the audience.

The Chief Guest Dr. Justice Sastry, VU2QFZ addressed the gathering highlighting the usefulness of the hobby in social networking and mentioned regarding the various disastrous situations when BARC members had volunteered to set up emergency communication stations. He also quoted that, during the 1980s, while he was living in Basavanagudi close to the QTH of Bindu, VU2IR, whose shack he used to visit out of curiosity, and ultimately how he became a radio amateur himself.

OM Ramesh, VU2RMS, President Amsat India shared his views about the current trends in Ham Radio and the activities of AmsatIndia. OM Subramani, Secretary, Upagrah Amateur Radio Club addressed the audience and offered his full support to the BARC-DJY-2019 celebrations.

Prominent among many old-timers who were present in the audinence were, Soma-VU2RO, Hari-VU2GZ, Philip Ollapally-VU2XP and Jam-VU2RQ.

Vote of thanks was delivered by BARC GC Member, Venkatesh-VU3IMV. The function concluded with the singing of the National Anthem.

73 - Ramesh Kumar VU2LU

A Ham Radio Training workshop was conducted from 25th March 2019 to 29th March 2019 at Besant Park, Doddaballapur - just north of Bengaluru. It was attended by 125 Rangers and Rovers from across Karnataka.

The group that handled the event successfully was - VU2GRM Ram, VU2PE Kiran, VU2ARG Rajesh, VU3VRL Ramesh, SWL AMITH, VU3KPE Kiran, VU2GSM Srikanth, and VU3NPY Gururaj.

The workshop introduced the aspirants to operating procedure, rules and regulations, Q codes and Radio sports. All attendees were given opportunity to have QSO's - by way of 'modulation tests' - using handies to help them get a feel of it.

The grand finale was them taking up a yagi antenna with kenwood handy and hunt down the well concealed fox VU3VRL and his harmonic OM Amith.

Certificates were given to all attendees who completed the course.

MYSURU, KARNATAKA

A ham awareness talk and demonstration was conducted by amateurs from Mysuru Amateur Radio Club MARC at the PES Engineering College, Mandya. There was excellent response from a large gathering of students who were curious about this scientific hobby. Gangadhar - VU3OCR, a professor at the College, was present. It is hoped that he will get on the air soon, from the college club station.

The students

Kesari VU2MTK lighting the lamp

Kesari spoke at length on the history of ham radio, the station or the 'shack', radio propagation, and the various activities of hams - like contests, award hunting, DXpeditions, of course, how to obtain a ham licence.

In the meantime, Sarav VU2ETS and Gangadhar had set up the demo station hooked to a ‘make-shift’ inverted vee antenna for 40. Sarav made several CQ calls but unfortunately the propagation was extremely poor - and QSOs with nearby Mysuru amateurs were not possible on the 40 meter band. This gave an opportunity for the students to learn about the solar minimum causing the poor propagation on the HF bands. Demos were made with VHF contacts locally – to give the students an idea of how the contacts are made between amateurs.

Sarav VU2ETS looking for stations

The gathering around the demo station

The event ended with a general question hour - with Kesari and Sarav fielding questions from the enthusiastic students.

MUMBAI, MAHARASHTRA

The CQ Mumbai Amateur Radio Convention was held on 3rd March in the mini auditorium of SNDT Women's University, Juhu. The Convention grew out of the erstwhile CQ Mumbai eye-ball meet that has been growing in numbers over the years and morphed into an event that is now more than just meet and greet. No surprise that the participant numbers surpassed those of previous years.

Apart from providing an opportunity to renew old friendships and forge new ones, the event also provided both newcomers and old a platform to learn more about what amateur radio has to offer in the 21st century. There were lectures ranging from home-brewing to operating which offered great insights to the audience, delivered as they were by speakers who are connoisseurs in their specialised pursuits within the hobby.

Charu VU2UPX who is a well-known home-brewer gave a talk on what Raspberry Pi has to offer in amateur radio and walked the audience through various implementations. His talk met with a very enthusiastic response and there are already amateurs who are tinkering successfully with Ras-Pi.

Suresh VU2EOJ gave an introduction/demo of Digital Mobile Radio (DMR) and why it is a growing rage these days.

Manoj VU2CPL and Kiran VU2XE both came all the way from Bengaluru to share their experiences of HF operating. Manoj VU2CPL gave an introduction to DXing and how it can be different things to different people and still very rewarding. Kiran VU2XE, the Contest & Awards Manager, talked about the nuts and bolts of contesting and narrated his own story starting as a newbie in suburban Mumbai in the early 2000s to becoming a VU contesting mainstay.

Deepak VU2CDP provided a perspective on re-learning CW in order to be able to communicate on the bands. Pankaj VU3PMJ capped the lecture stream by showcasing a simple home-brewed setup for receiving ISS telemetry.

The event also recognised winners of the CQ Mumbai VHF Contest held in 2018 with the first place winner taking home a dual-band HT. There were also goodies in the form of RTL SDR dongles sponsored by Radiojitter.com that were given away through a fun quiz. The organisers are grateful to the Principal and staff of P.V. Polytechnic, SNDT Women's University for their support for the Convention. There was all round positive feedback for the event and it is hoped that future editions will be a permanent feature on the Mumbai calendar.

Tnx: Deepak VU2CDP

PUNE, MAHARASHTRA

The February meeting of Pune Hams was attended by 18 Hams and SWLs.

The meeting started at 10:30AM with snacks, Tea & informal discussions with Dr Jeevan Prakash Kulkarni, ex IMD and Weather expert. He explained activity of **People Science Forum.** Mr Ashok Tatugade, activist **Marathi Vidnyan Parishad** explained new initiative of starting Weather station at every Taluka school. Pune Hams extend their full support for such an initiative - which is a complimentary activity of all three organizations.

OM Mangesh Patil VU3OUM spoke on Weather satellites.

Everyday multiple NOAA weather satellites pass above us. Each NOAA weather satellite broadcasts an Automatic Picture Transmission (APT) signal, which contains a live weather image of your area. The RTL-SDR dongle combined with a good antenna and a decoding program can be used to download and display these live images several times a day. The focus of the presentation was to show how to set up a NOAA weather satellite receiving station, which will allow us to gather several live weather satellite images each day. This also included building different antennas like the Double cross and Qaudrifiler Helix Antenna and decoding it with software on Windows and Linux platforms.

Dr Jeevan Prakash Kulkarni complimented Mangesh for his wonderful initiative and explained few Images with details. He also explained how to understand various cloud formations visible.

The ASOC exams were held at Pune on 10th March 2019; more than 120 aspirants for Ham Licence appeared for the exams. This is a 'first' in the history of Amateur Radio in Pune, maybe in the country. Hi

90 of the participants were trained by the Aniruddha Bapu Group – Mahest VU2XFE and his team made all the arrangements with the WPC to hold the examinations.


ASOC Exams in Pune

The March meeting was held on 3rd march, 2019. The meeting started at sharp 10:30 AM with snacks and tea - at Hotel Kollage, our usual meeting location.

The discussion started with a nice demonstration of Raspberry Pi FM by OM VU3OUM Mangesh. He explained how raspberry pi can be used as FM transmitter which transmitted a signal at 144.800 MHz and received by Baofeng VHF Handy UV5R. Everybody appreciated his efforts.

It uses the hardware on the raspberry pi that is actually meant to generate spread-spectrum clock signals on the GPIO pins to output FM Radio energy. This means that all you need to do to turn the Raspberry-Pi into a FM Transmitter is to plug in a

wire as the antenna (as little as 20cm will do) into GPIO pin 4. It works from about 1Mhz up to 250Mhz and range will be about 200 meters with the wire antenna.

The meeting continued with the technical discussion about DC to DC converter and 3 ph tester was covered as query by swl Manik Pawar to OM Milind.

VU2MSB, who gave solution of using battery pack and to make a small mechanical/electronic generator respectively.

VU2MSB shared his industrial experiences with all the hams and newcomers and how his hobby of ham radio made him expert in electronics and mechatronics being a mechanical engineer. Everyone admired the strong basic knowledge of electronics and mechanical both, of this OM.

The meeting ended with giving the best wishes to all those who will be appearing for the general grade examination this month and a cheerful group photo.

For full details of the Raspberry Pi radio, please contact me:

73, Vilas Rabde - Adviser, IL & FS CapSwap 9822502078

The monthly meeting for March organised by the other club - **PUNE HAMs & AMATEUR CLUB** - **VU2PHQ** was held on Sunday, 17th March 2019 at the PUNE HAMs & AMATEUR RADIO CLUB's Club -VU2PHQ- Pune Cantonment.

There were discussions on several topics, including:

*the recently conducted ASOC Exam where 25 applicants from the club appeared for the exam,

* the Magloop antenna with a motor controlled variable capacitor project,

* the changes, the bug fixing & the additional features added to the antanna analyser (built at Lamakaan Convention) by SWL Dhiru - Dhirendra Singh Khokia who appeared for the ASOC Exam.

* Using CW for our VHF Net in order to encourage the use of this medium of communication,

* Exploring solutions for SMPS noise in context of SDR transrecivers,

* less used amateur bands that we need to start using.

* trap dipole antennas and EWS antennas

* purchase of ham gear and paraphernalia,

* planning activities & projects for the near future.

This was followed by fellowship.

The next PUNE HAMs EYEBALL QSO will be held at the COLLEGE OF ENGINEERING PUNE - VU2COE on 7th April 2019.

- Do look us up our FB page. http//:facebook.com/punehams/

73 VU2UPQ - UDAYA PATIL

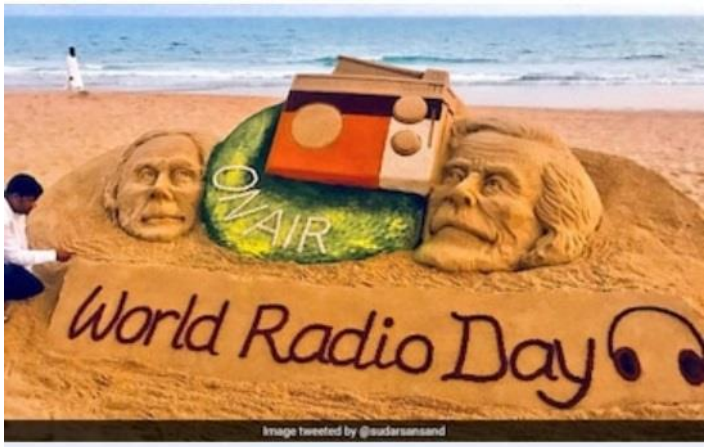
World Radio Day *is an observance day held annually on 13 February to celebrate radio as a medium. It was proclaimed on 3 November 2011 by UNESCO's 36th General Conference after originally being proposed by the King of Spain EA1JC.*

The day was celebrated by Pune Hams, at "RadioFTII / 90.4 MHz" – the radio station located at The Film & Television Institute Pune. There was an exhibition of vintage radios.

SWL *Vishvas Kale* took review of Radio science History and shared Future of Radio Technology in ***"Radio – yesterday, today, and tomorrow".*** OM Vilas Rabde VU2VPR conducted *Quiz on Radio*

The prizes sponsored by Vishvas Kale were distributed to the Quiz winners.

The event was well received by more than 100 local people who attended the event.



World radio Day 2019: Globally acclaimed artist Sudarsan Pattnaik's sand art on World Radio Day.

GWALIOR, Madhya Pradesh

The ASOC exam was conducted by The Amateur Radio Club of Gwalior in association with Institution Engineers (India) on 5th January 2018 at J.A.Sindh School Gwalior. Total 51 candidates filled the exam forms - that included advocates, teachers, engineers, scouts and guides, and self-employed young students. The highlight was, in addition to candidates from Gwalior, some candidates from Raigarh, Jabalpur, Sagar, and Baliya (UP) also appeared for the exam. Prior to the exam, *ham radio training* was organized for four days at different places. OM Jayu VU2JAU along with OM V.K.Arya VU2VAB, who came all the way from Delhi for assistance in training, took all the pains to train the candidates.

It was wonderful to see the interest among the young and old of the community.

We are thankful to all who supported the program. Special thanks to IE(I), J.A.Sind school for providing the venue for exam, Mr. Narendra Kunte for the place for training and Human Rights administration for providing the place for training. In the end all Scouts and Guides candidates were given a certificate of training. The Scouts & Guides Baliya (UP) gave special honour to all by their special scarf and caps. Amateur Radio club members OM Kailash Agrawal VU3CTP and OM Narendra Tuniya VU3TNG helped a lot in conduction of exams. We are happy that the HAM Radio hobby is reaching to all corners of our community.

73 - Jayu VU2JAU - Gwalior.

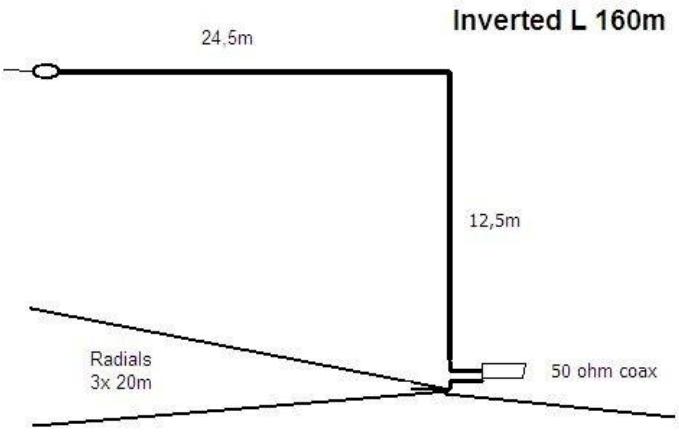
0 to 100 on 160 meters

My experiences of exploring the top band - aka Gentleman's band - *by Manoj Ramawarrier - VU2CPL*

How it all started

During the expeditions to Lakshadweep Is during 2016 and 2017, we had numerous requests to be active on 160m band also known as top band / Gentleman's band. When we declared our inability to be active on low bands mainly due to logistic bottle necks and also due to inexperience of operating on these bands, we had a surprise- many of them requested that we try 160m from VU itself from where it is considered equally rare. While discussing many options of a Dxpedition or IOTA activation in the coming months with Kiran, VU2XE, he came up with the idea of trying a low band expedition from a quiet location. He and Siddhu VU3 NXI decided to give it a try from a location close to Udupi. Details of this expedition can be found here.

While planning for this expedition, Kiran encouraged me to install a 160m antenna so that at least we can try a VU - VU QSO. All of us were newbies on this bands and had no clue about propagation or about behaviour of the band in general. I had plans of putting up a 80/160m antenna for quite some time and was discussing with Prasad VU2PTT about different possibilities. After long deliberations, I decided a mono band inverted L was the best option I had at my QTH. I planned to go with elevated radials since the antenna will be installed on my roof. On December 01, 2017, I put up the inverted L with 2 elevated radials.



An example of Inverted L

Please note the feed method which worked for me was a hairpin and I am using only 2 elevated radials.

When I connected the antenna analyzer, I was disappointed to see a very high SWR and a very narrow tuning at resonant frequency which was well beyond our band (1820-1860 kHz which later changed in 2018). After repeated trips up and down the roof and many to the ends of radials which were tied to the compound walls of our layout, the best I could muster was an SWR of 3-4:1 within the band at 1830 kHz and that too with an extremely narrow usable bandwidth. The tuner in my amplifier was not happy seeing this mismatch and I decided to try the built in tuner in my radio and was able to get away with this mismatch.

I discussed the issue with Kiran and Siddhu and was surprised that they never faced such an issue. Some more tests with my antenna analyser showed the feed point impedance was around 17 Ohms and was the culprit. I realised I failed to understand the antenna before I put it up. After a quick check with Kiran again, I realised they were using only one elevated radial and had a higher feed point impedance which meant an easier match with a 50 ohm coaxial cable.

In a hurry to try out the new antenna, I did a test with Kiran and later with Siddhu as well, for the first QSO on 160m.

CQ DX ON 160 METERS

On 02 December I decided to call CQ and see how the band was. I was surprised to see lots of spots into EU and before I realised, I was running a pileup. I worked stations and the pileup grew faster than I could manage mainly due to lack of good RX at my end. Noise levels were easily almost S9 on inverted L and pulling signals out of this noise priced to be a very draining experience. At the end of few hours, I couldn't continue any further. After first few nights on air on 160 meters, I discovered that many stations were copying me very well even with a highly compromised feed system. I wanted to ensure that I have a close to 50 ohms at feed point so that I can run with my linear amplifier. Another few rounds of discussions with Prasad and Sangeeth VU2TT (A45TT) who operate on 160 from A57RS/A44A, I decided to try a hairpin match at the feed point. After a few trials, I fixed an inductor

at the feed point which was wound with 4 Sq mm wire on a one inch PVC former. The SWR now was 1.05:1 on 1830 KHz and I was delighted at the results.

RX antenna

As I became a regular on 160m, I started getting emails about how others could copy me and questions on my receive antenna systems. I realised I am generating a bigger pile up than I had imagined and that I better improve my RX abilities. I had used an N6RK loop as described in this NCJ article for my 80m runs. Prasad VU2PTT had fabricated some PCBs after writing to Rick N6RK and had built a few units as an initial run and I was one of the beneficiaries. I found this antenna helped me hear many stations I would not have heard otherwise on 80 meters. But this loop which is designed for 160 and 80 did not perform well for me on 160 meters.

The N6RK Loop as installed at 9V1EA

I realised the signal levels out of this loop was too low and I did not have the suitable pre-amp. Even Kiran had reported same results during his low band DXpedition. I started looking at my options for a better RX antenna. During our preparations for the VU7 DXpedition I had ordered a beverage kit from Jan OK2ZAW of remoteqth.com. It was sitting idle and I realised I can probably try and see how it fared for me.

Raja VU2KSJ used to repeatedly advise me to consider using a beverage antenna for my 80m activities, but I never realised how important an RX antenna was, before moving to 160m band. On 80m, it was useful, but was not a must *(or so I thought).* So all I wanted now was some wire. Initially I was ready to go shopping for a roll of insulated wire for house wiring, but during our discussions, Raja had mentioned how he used bits and pieces of wire he salvaged from old transformers and motors. Inspired by this, I set about finding a suitable wire for my beverage. I didn't have any

readily available and then suddenly remembered I had some old CAT5 cable lying around. I found a length of 30m cable in my junk and decided to strip it. With the help of my Man Friday- my driver Manju, we successfully removed all 8 strands from the cable, this was a mammoth task and our hands were aching from all the untwisting, turning and re winding it all on a new spindle fashioned out of old PVC pipes. I got a total of 240 metres of wire which was more than adequate for my proposed 80m beverage. I strung 2 pieces of wire in a NW/ SE direction which was the best direction from my QTH to target EU and Far East. For switching directions, I decided to use a home brew switching box from my phased vertical antenna which was built by Paul A65DR. Armed with the beverage box, I had a reversible beverage now on Dec 16th 2017 and results were stunning. Some of the stations who were unreadable on my 40m antenna were loud and clear on my beverage. Armed with new pair of ears, I set about exploring the band even more and was confident on taking sked requests.

Further RX improvements. The new RX antenna helped me bag some more of EU stations and more importantly I could hear even W stations just before our sunrise peak. My first QSO with W land was N3SL on 22 Dec 2017 and that day I went on to work 4 more W stations. The next day, again I was able to work 4 more from US. From here on, hearing and working US was not very difficult. Only problem was these were big gun stations with very good Tx/Rx antennas. Unless I improve my Rx further, I wouldn't be able to give out that elusive Zone 22 /VU QSO to many. By the end of winter *(considered best for low bands)* I had 85 countries worked and most of them confirmed on LOTW or in the form of cards. After using an RX antenna, I felt i needed a preamplifier as well. During discussions with Gopan VU2XTO who is also a keen CW operator with whom I used to share my QSO recordings, he suggested I try a 160m BPF and preamp. He even built the unit and send me by courier to test. I owe some of my QSOs to this BPF and preamp from Gopan**.** **My antennas:**

One common message I found on all the emails I received was appreciation of immediate QSL on lotw. We, as VU stations, have a very bad reputation when it comes to replying to QSLs and I wanted to change this trend by being prompt with all QSL requests.

In April 2018 after working 3B7A, I decided to get ready for pre monsoon and removed my beverage and Inverted L antennas . The Tx antenna was tied with a normal nylon rope which did survive the first few months, but was showing signs of giving up. During one of my trips to YB land, I came across a fishing rope which the locals use for almost everything and I immediately procured a few rolls for my use. These were multi strand nylon rope specifically used to make fishing nets and I was sure will stand the harsh elements better than usual ropes we get locally.

By Sep 2018, I re installed my Inverted L and this time, we had some construction where I had installed my previous beverage. I was disappointed that this season, I mayn't be able to install the beverage. But on low band reflector and low band chat groups, I have heard people say, any beverage is better than no beverage. I started scouting for suitable location and came across a row of trees right in front of my house in the N/S direction. I decided to install my beverage here for the season. I started season on 09 Sep 2018 working UA4CR and DU7ET. Bob DU7ET is a hard core low band operator and was a great influence in me running the low band myself. He used to be on air almost every day even during the summer and rainy season. His dedication inspired me to be QRV as and when my schedule permits.

This season, I was hopeful of reaching my 100 on top band, but every single country was proving to be more and more difficult. On 5 Sep 2018, I had Venu VU2MV visiting my shack. He is an old timer and a CW enthusiast and was very impressed on my activities on low bands. He promised that he will be QRV on 160m soon after his retirement and moving back to his home town where he has sufficient space for Tx and Rx antennas for 160m. He went on to write a small but detailed and inspiring post on Facebook where he had posted some pictures and mentioned my interest on 160m.

I had tried to search if anyone form VU has reached a DXCC, but didn't find any in the ARRL list. I had a discussion with Prasad VU2PTT who is a keen contester and has been leading the world class contest station A44A during CW contests. He being someone who can analyse my activities advised me to steam up and finish the 100 as soon as possible. We analysed some countries which were considered "low hanging fruits" like 4S, 9N, 8Q7 etc were still in my wanted list and after some careful analysis we figured there is a fair chance of me making it to 100 if I can work some of the upcoming Dxpedition. I tried at Kh1, but was disappointed to not even hear a squeak on 160m. But I heard them very feeble for a few seconds for an 80m QSO. Next was TO6OK from Mayotte. I listened to them for 3 days and managed to get a peak before our sunrise for a few seconds and completed my QSO.

Karel OK2ZI was the operator at the other end and I salute his patience and persistence with which he pulled me out of noise.

Paul A65DR was going to be in VK9 and I was in touch with him to see if they had any 160m plans. Initially they were hesitant to come on 160m, but after Tom SM0CXU confirmed his plan to be on board, they decided to put a station on 160m. I have a bad ear towards E and SE and I was not sure whether I will hear them on 160m. But listening for 3 days I heard them on day 2 of their operations on 160m just after our sunset. I immediately let Paul know I can copy them and he promised we will try for a QSO next day. Next day, signals at my Rx was not that great but I managed to work them on CW, thanks to Toms great ears. # 87 was in the bag!

A special mention about my # 82 which was VU4G John (G4IRN) who was doing a solo Dxpedition to VU4. John never had plans for 160m and while transiting Bangalore, I had the opportunity to host him at my place. John is a seasoned traveller and an excellent CW operator and had loads of experience to share. While he was leaving for the island, I requested him if we can try 160m. He, being a one man Dxpedition, was not sure whether he can, but promised to give it his best and he did! Despite high noise levels and a no RX antenna, he copied my signal on 160m.

9N was my # 88 which happened through a Japanese Dxpedition team to Nepal. I worked 4S7, thanks to Riyad 4S6RYD and Kamal 4S7AB and the next Dxpedition was Z23MD which was #90.

After this going got really tough and endless CQ calls got very few responses and no new ones. One night while I was endlessly CQ-ing, I heard a very faint copy “RRC” I sent RRC? then heard P6RRC. I was quite sure it was SP6RRC and gave him an exchange. But he came back sending his QSO a few more times and I couldn’t believe my luck, It was EP6RRC! Iran Dxpedition - who were probably just testing their antennas on 160m. I would have been in the pile of stations calling them from next day onwards, but I was lucky to hit the jackpot that night.

I was thinking CQWW CW contest will give me the much needed 5-6 stations boost to get me in touching distance of my 160m DXCC, but conditions were really so poor that I didn’t get even a single new one in the contest. But soon after the contest, I worked AP2AM to reach # 92.

I have been trying to have a QSO with ZS for a long time and I had received a sked request from ZS2DL Don through VU2NXM, Basappa who himself is a great CW operator and a member of the VU DX and Contesting group. I got in touch with Don who had to reinstall his vertical for 160m in his salt pan and on Dec 02 2018, I got through to Don.

160m operations from a high rise apartment?

Prasad VU2PTT had requested to take a N6RK loop kit to 9V1EA, Jun who was having trouble with rx on 160m from his high rise building in Singapore. I was happy to carry the loop for Jun during one of my trips. Jun invited me to visit his apartment and I was astonished at his operating setup!

Jun had a detachable fibre pole antenna on top of his 35th floor apartment and was working even on 160m against all odds. The noise levels at his apartment was through the roof and I realised I am very lucky to have sufficent space to setup antennas as well as a relatively lower noise floor. Jun promised to try a QSO on 160m CW and on the same night I worked Don, I worked Jun with a very good signal. He told me the loop helped him hear me which wouldn't have happened otherwise. He had signed a QSL card for our eyeball QSO while we met and had mentioned, next time I will give your 160m QSL card and he did! During my visit to 9V on 04th Jan 2019, I visited Jun again at his apartment and we exchanged our QSL cards! . Jun has written about his experiences of working on 160m form Singapore in CQ Japan magazine. This is me, at 9V1EA to exchange the 160m QSL card:

Many sleepless night later once after 1730UTC I thought I heard the call sign K9FD? I initially thought it might be a busted call thinking K9FD was in US and there was no chance of hearing them on 160 at that time. But checking the QRZ page I realised K9FD is Merv from Hawaii and it would have been about an hour or so after his sunrise. Not very sure whether it was intact K9FD/KH6, I decided to write to him to check if he was trying to call me. To my surprise, he immediately wrote back saying he was thrilled to hear a VU almost one hour after his sunrise, but when I called him back, the signals started fading!. We agreed to try again in the coming

days and 2 days later on 04th Dec 2018, I worked Merv on CW for my # 96. He wrote to me saying he has never heard a VU at all and was excited to have a QSO.

97 and # 98 came in the form of BV1EK and EK3GM. Ash 3V8SF had written to me a few times he was trying to work me and even though he heard me a few times, we never had a 2 way QSO. On 20th December I had come back from duty late night and decided to try 160m and Ash was QRV. Before I knew, I had worked him!. He immediately sent me a recording of the QSO and asked me if I had made any recording? The reality was I didn't expect QSO to happen so soon and never even bothered to keep the record button ON!.

Slowly, it dawned on me that I might just get my sought after # 100 soon. I was on leave from 21st to 31st December 2018 and our family holiday plans were cancelled and we decided to take it easy and spend time at home. Time at home meant more time on 160m for me! I started calling CQ more often and on the night of 21st Dec itself, I heard Harry JD1BMH on 160m CW. I called him a few times and I thought I worked him, but the stress was beginning to tell when I replayed the recording of our QSO. I was not sure whether he sent VU2CPL? or did he send something else? QSO was busted? Worried about losing that #100, I became a LID (*Lid is a DXing parlance when someone incessantly calls the DX without proper listening*) and started sending my call again! Harry came back to me 3 times I think. Having reasonable reassurance now, I stopped calling. Later on Harry congratulated me on my DXCC on 160m and very politely mentioned " you were very loud". I felt like burying my face in the sand!!! *Embarrassed* would be an understatement!.

I went on to work OY9JD an 27th December on 160m and 80m with excellent signals and then on 28th I worked Mehmet, TA1CM as my 102. I was very pleased when I received a mail from Mehmet TA1CM that I was his #100 on 160m!!!!.

I continue to work on 160m and 80m and now 60m as well and enjoy providing the much needed VU/ Zone 22 QSO to many. I am also proud to say that I could manage a decent RX setup which worked not only on 160m , but on other bands up to 30M despite all limitations of space.

For those who are planning to try the 160m or even 80m, I would politely suggest getting their RX antennas up. There are many options available in the form of loops of various flavours like N6RK, mag loop, K9AY loop and even flags- EWE and pennants. **160m is a lot of effort, but each station you work is a new friend for life**. On no other band, you get a mail or message etc thanking you for almost every QSO. If not for a dxcc/ award, try 160m for a great QSO experience. If you know CW, you will enjoy it. If you don't know CW, try to learn the code, you are missing a lot of fun in your life. If CW is impossible for you, you are out of luck. In India post NFAP 2018, our 160m band is cut down to 1800-1825 kHz which means you cannot TX on 1840 which is the frequency usually used by everyone for FT8.

This write up would look like a 'thank you note' to many of our friends. It is not a coincidence. It just proves that this feat was result of many well-wishers who dedicated their time and effort and shared their experiences so that I can pursue this new band.

My QTH is in a *semi-rural* setting – north of Bengaluru, with noise levels lower than the city and suitable for low band activity.

I use a Kenwood TS990, Flex 6400 and various other home brew radios. Antennas are inverted Vee for 80/40m, inverted L for 160m and 60m, Hex beam for 20-6m. For Rx, I use a Beverage, a K9AY loop and 2 N6RK loops (one dedicated for 160m only operation)

I am trilingual (Phone, Data and CW) and love to operate CW. Was leading VU7MS and VU7T and was part of AT5P operation.
Some statistics for those who enjoy number crunching!

Received my licence in 1993 - was active during 1993-97, then 2003-2007.

DXCC in 2015 and the 5-Band DXCC in 2017

DXCC on top band 160 meters in January 2019

Number of QSOs 1622 of which 1250 are unique calls. Countries Worked 102 (90 CW rest FT8) CQ Zones worked on 160m 29

Maximum worked country UA, UR and DL all more than 100 QSOs UA is an astonishing 393 QSOs.

Continent wise break up

Europe 1280; Asia 264; North America 45; Oceania 16; Africa 14; and South America 3.

No QSOs yet with Antarctica on 160m.

If anyone needs any help in setting up their stations for low band, I would be glad to share my experiences. I am available at vu2cpl@gmail.com. **73 de Manoj VU2CPL**

HUNDRED YEARS OF FREQUENCY STANDARDS

Do you know, there is a Radio Station that has been continuously transmitting 24 x 7 for the past one hundred years? The call letters of the station is WWV – and it is located in Fort Collins, Colorado USA.

It is famous for its continuous 'time signal' broadcasts establishing the official United States government frequency standards, using transmitters operating on 2.5, 5, 10,

15, and 20 MHz with radiated power of 5 KW on the lowest and highest frequencies and 10 KW on the remaining frequencies. The station is operated by U.S. National Institute of Standards and Technology or NIST.

The station was first established in 1919 by the Bureau of Standards in Washington, D.C., and has been described as the oldest continuously-operating radio station in the United States. In 1931 it relocated to the first of three suburban Maryland sites, before moving to its current location near Fort Collins in 1966. WWV shares this site with long wave (also known as "low frequency" or LF) station WWVB, which transmits carrier and time code at 60 kHz.

The National Institute of Standards and Technology (NIST) and the Northern Colorado Amateur Radio Club (NCARC) are working together to organize the centenary event which is considered as an occasion to celebrate radio and our understanding of the electromagnetic spectrum, at the same time, providing an opportunity to help people everywhere appreciate what radio does in their everyday lives.

NIST is planning on Tuesday, October 01 2019, when they will host a recognition ceremony and an open house at the radio station.

NCARC will operate a special event amateur radio station, call sign **WWØWWV starting** September 28 and going 24-hours a day through October 2. The goal is to make as many contacts during the 120-hour period as possible, using multiple bands and multiple modes on at least 4 simultaneous transmitters. The effort is being supported by hundreds of volunteer operators.

http://wwv100.com/ **VU2TS/Ed**

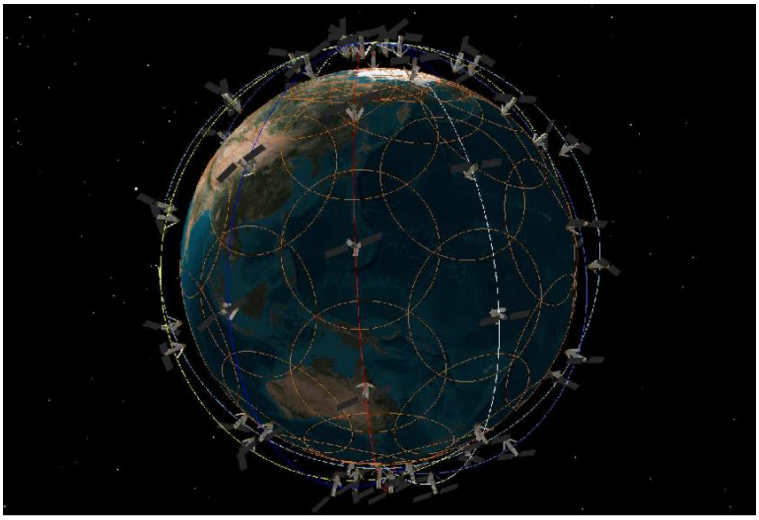
IRIDIUM SATELLITES

When we are looking for amateur satellites and the ISS passes suitable for our QTHs, we come across another prediction: “Iridium Flares”. These are flares from communications satellites put into orbit by the Iridium Communications Company.

Started in 1997, the company launched 66 telecommunications satellites in orbit of the Earth and these were known to 'flare' briefly in the early night/morning sky as their solar panels caught and reflected the sun's rays. Many of us have seen these flares too. However, the original 66 satellites have been phased out, and a new generation of satellites – called Iridium NEXT – is in place today. The Iridium NEXT satellites don't produce the flares anymore, so these flares have become the *thing of the past*.

Today there are 75 satellites in all – known as the *constellation* - launched by the now famous SpaceX Company from Vandenberg Air Force Base in California – 66 in the operational mode and nine as spares/standby. The constellation provides L-band (1 – 2 GHz) voice and data coverage to satellite phones, pagers and integrated transceivers over the entire Earth surface. Iridium Communications owns and operates the constellation..

It is very interesting to note how the constellation works. Satellites are in low Earth orbit at an altitude of approximately 800 km with an inclination of 86.4°. Orbital velocity of the satellites is about 27,000 km/h. Adjacent satellites communicate with each other via Ka band (26 – 40 GHz) inter-satellite links. Each satellite has four such inter-satellite links: one each to the neighbours fore and aft in the same orbital plane, and one each to satellites in neighbouring planes to either side.



Iridium Satellites with their footprints

The satellites are in Polar orbit with an orbital period of roughly 100 minutes. This design means that there is excellent satellite visibility and service coverage. The over-the-pole orbital design produces "seams" where satellites in counter-rotating planes next to one another are traveling in opposite directions. (while some are in the ascending mode, some may be in the descending mode) Cross-seam inter-satellite link hand-offs would have to happen very rapidly and cope with large Doppler shifts; therefore, Iridium supports inter-satellite links only between satellites orbiting in the same direction. The constellation of 66 active satellites has six orbital planes spaced

30° apart, with 11 satellites in each plane (not counting spares). Incidentally, the original concept was to have 77 satellites, which is how the name 'Iridium' was decided - being the element with the atomic number 77.

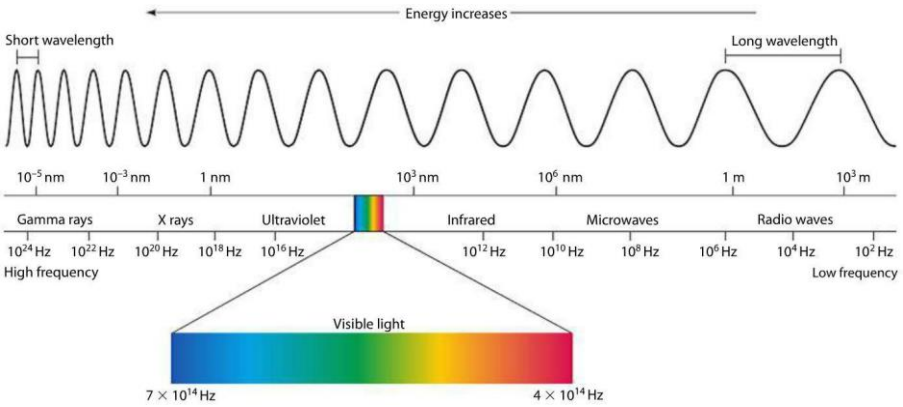
Further reading: https://www.marsat.ru/en/technologies-iridiumnetwork

VU2TS/Ed

COMING UP SOON IN THE SPACE ABOVE YOU:

X-RAY COMMUNICATIONS

We all are familiar with the electromagnetic spectrum – but I am sure a refresher will not be out of place:



(Image source: https://www.miniphysics.com/electromagnetic-spectrum_25.html)

As we can see from the above image, the all too familiar *radio waves* have the longest wavelengths, varying from a few centimetres to thousands of metres. The highest frequency tested so far is in the range of 300 GHz - 10^{9} - while X-rays fall in the range of 30 peta-hertz (10^{15} Hz) to 30 exa-hertz (10^{18} Hz).

NASA is now set to demonstrate x-ray communications in space.

Currently, NASA relies on radio waves to send information between spacecraft and Earth. Emerging laser communications technology offers higher data rates that let spacecraft transmit more data at a time. This demonstration NASA is planning involves X-ray communications, or XCOM, which offers even more advantages.

X-rays have much shorter wavelengths than both infrared and radio. This means that, in principle, XCOM can send more data for the same amount of transmission power. Another advantage is, the X-rays can broadcast in tighter (narrower) beams, thus using less energy when communicating over vast distances.

If successful, the experiment could increase interest in the communications technology, which could permit more efficient gigabits-per-second data rates for deep space missions. Gigabits per second is a data transfer rate equivalent to one billion bits, per second. These extremely high-speed rates of data transfer are not currently common, but new research projects have pushed computing capability toward this range for some technologies.

https://gameon.nasa.gov/2019/02/20/nasa-set-to-demonstrate-x-ray-communications-in-space/

VU2TS/Ed

WHO – *OR WHAT* – IS A YL?

In May 1940, the YLRL – *The Young Ladies Radio League* - set forth the policy that the term "YL" was to be used of all licensed amateur operators of the feminine sex. This meant they were all young ladies no matter what their marital status was. A licensed woman is an YL while an XYL is a 'non-licensed' wife.

Many OMs have used XYL (meaning Ex-Young Lady) to describe a wife whereas a single lady was a YL, but some women take offense at this term feeling that getting married does not mean a female is no longer a 'Young Lady'.

The term YL was first defined by The American Radio Relay League in a letter to a lady who submitted an article for publication.

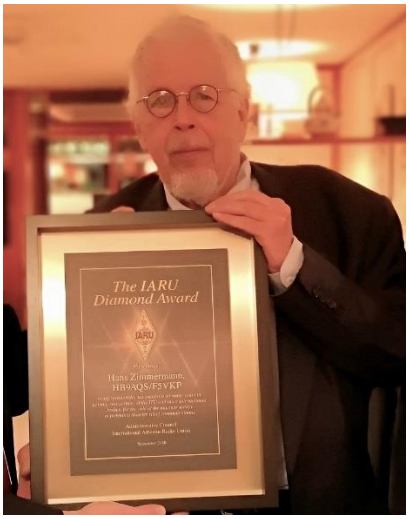
The letter is believed to have stated *"My Dear YL,* ***"Please note we have had to coin a new phrase for your benefit as you will readily see that OM (Old Man) will not fit you and OL [Old Lady] would certainly be most in-applicable."*** That was how the term YL was first applied specifically to label all women as 'Young Ladies' no matter what their age. https://ylrl.org/wp/

VU2TS/Ed

NEWS FROM ALL OVER

IARU Diamond Award for HB0AQS

The International Amateur Radio Union (IARU) Administrative Council has recognized Hans Zimmermann, HB9AQS/F5VKP, for his success over many years in raising the visibility at international forums for Amateur Radio's role in providing disaster-relief communication. The presentation of the IARU DIAMOND AWARD took place on February 20 in Geneva.



Hans served as IARU Disaster Communications Adviser and later became IARU International Coordinator for Emergency Communications. He was a major contributor to the Global Amateur Radio Emergency Communications (GAREC) conferences held from 2005 until 2014.

-O-O-O-O-

Revised IARU Region 3 Band Plan Released

The IARU Region 3 Band Plans have been reviewed at the triennial IARU Region 3 Conferences.

A version using a new format was adopted at the 17th IARU Region 3 Conference, Seoul, September 2018 on condition of further modifications taking into account the comments/corrections raised and approved at the conference.

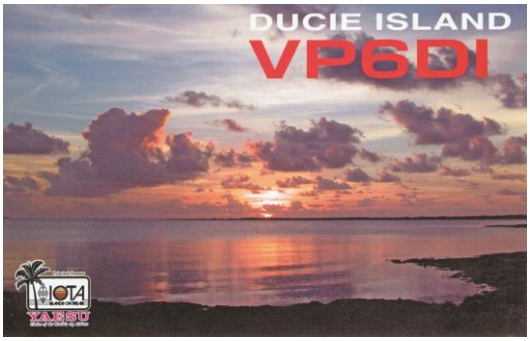
The IARU Region 3 band plan committee, which was set up in Region 3 in December after the conference and chaired by Sion Chow, 9M2CQC, reviewed the outcome of the Conference and completed the revised work with the conjunction of Region 3 Chairman and directors.

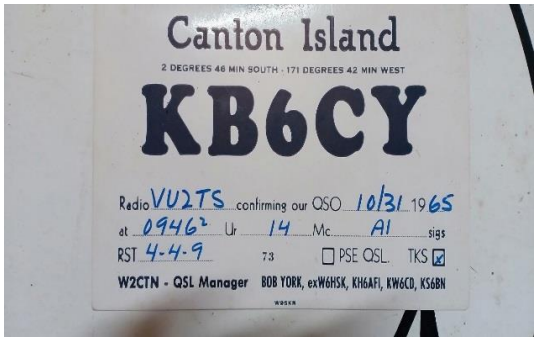
The revised IARU Region 3 band plan can be downloaded from:

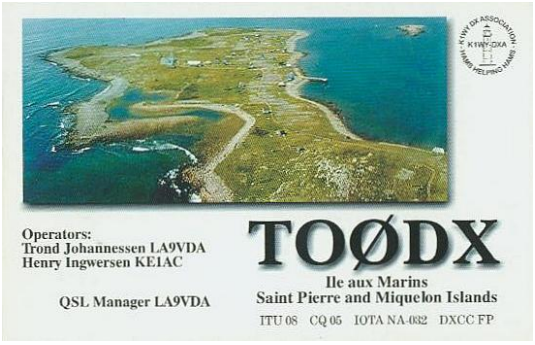
R3-004-IARU Region 3 BAND PLAN rev.1.pdf

73 de Shizuo Endo JE1MUI - Secretary, IARU Region 3

QSL CARDS DISPLAY – CARDS FROM VU2TS COLLECTION







ARSI QSL BUREAU

VU2LBW OM Lucky has expressed his inability to continue as QSL Manager.

VU2LU OM Ramesh has kindly agreed to handle the duties of QSL Manager for the remainder of this term. The address of The QSL BUREAU is already his address. Please follow the instructions at http://arsi.info/qsl-bureau/ to receive your cards.

Please send your queries to **qslBureau@arsi.info**

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