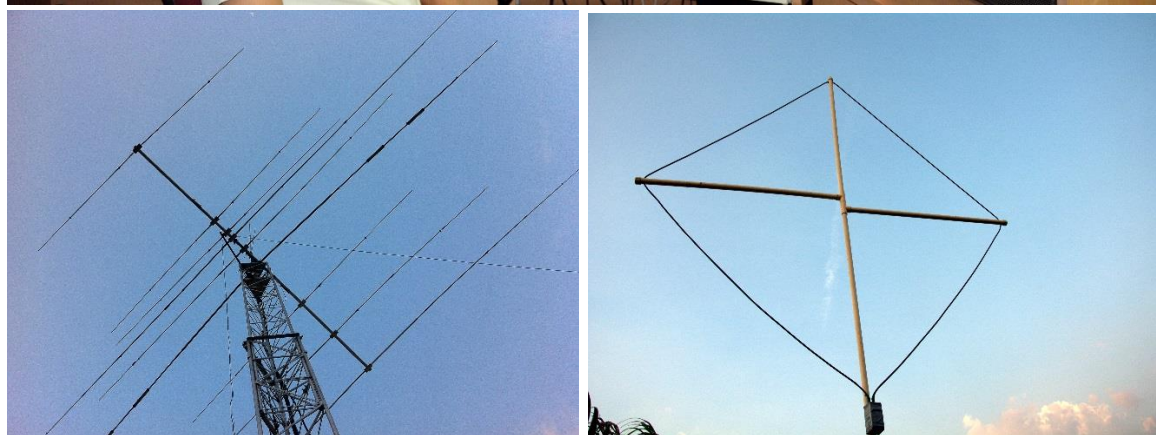




## ***Meet Lucky VU2LBW – your QSL Manager***



*8 element tribander at 45 ft and a trapped dipole for WARC bands under that, and a VHF/UHF collinear right on top. On the right is the 80 meter RX loop*



***Let's make some New Year resolutions:***

- 1. I will take time to listen for a while before I start transmitting.***
- 2. I will never cause QRM on the band for any reason,***
- 3. I will always give my full callsign – and not just the suffix,***
- 4. I respect my fellow hams and conduct myself to earn their respect,***
- 5. I will converse in a language that everyone understands,***
- 6. I will try my best to keep my station up-to-date,***
- 7. I will assist budding amateurs and newbies the best I can,***
- 8. I will propagate the hobby whenever an opportunity arises,***
- 9. I will assist others during national emergencies the best I can,***
- 10. I will pay my dues (with arrears) to ARSI membership immediately.***



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## PRESIDENT'S MESSAGE



Let me first of all wish all our members, and also all radio amateurs in India, a Very Happy and Prosperous New Year.

Hopefully the propagation will start making a comeback and we can have greater activity on the bands!

I have just returned from Bengaluru after attending the Hamfest India 2018 conducted at Reva University, by the Indian Institute of Hams (IIH)

IIH was celebrating its 25<sup>th</sup> year of existence and so it was a special year for them.

For the very first time in many years, The Wireless Advisor to GOI, Shri Ram Bilas Prasad and the Assistant Wireless Advisor, Shri Ramesh Chandra Malik, were present.

This gave a very good opportunity for us to voice to them our concerns and difficulties, and also request that some of the archaic regulations be done away with, especially those relating to mobile and portable operation where now prior permission is required. Several speakers, including myself, pointed out why this was totally redundant in this day and age when miniaturized radio equipment was available unlike in older days of valve sets which were not portable.

Copies of several letters which had been submitted earlier were also handed over. Promises have been made that our requests will be looked into and we now have to hope that it will actually be done!

According to the organizers almost 1400 delegates were registered.

The location and facilities were extremely good. This year, the event was conducted from 1600 HRS on Saturday the 29<sup>th</sup> to 1600 HRS on Sunday the 30<sup>th</sup> 2018. This was rather a short duration for delegates travelling from long distances who wanted to spend some more time together, but the time frame was fixed probably due to availability of the campus for that period only.

As the opening session took almost three and half hours it ate into the already short time for technical sessions, which then had to be truncated.

Most of the delegates were accommodated in the campus hostels and this was well appreciated. The organization of the event was also well received by the delegates.

ARSI had a presence at a booth where QSL cards that were received by the QSL Bureau were distributed to those present and to those who had nominated others to collect on their behalf. This was very well coordinated by our QSL Manager Lucky VU2LBW who had meticulously sorted and packaged the cards for distribution. This was extremely well appreciated. ARSI also signed up some new members. Some merchandise was also available for delegate.

73 - Gopal Madhavan VU2GMN

## FROM THE EDITOR'S DESK



A very happy and prosperous New Year to all – wishing lots of DX and hectic activity during the years to come!

Band conditions continue to be poor with sporadic openings on the HF bands. Enjoy reading all that happened during the last three months in VU land as well as around the world.

73 – Ganesh VU2TS



## IARU NEWS

### **Kosovo is not Z6 any more**

Amateur radio stations in Kosovo currently use Z6 call sign prefix but Kosovo is not a Member State of the ITU and therefore is not eligible to receive a call sign block allocation from the ITU.

The Z6 call sign prefix is not an ITU-authorized prefix allocation. The Secretary General therefore asked the IARU not to include such call signs on its website, where they have appeared since the admission of Shqata e Radio Amatoreve te Kosoves (SHRAK) as a member-society of the IARU in 2015. As a Sector Member of the ITU the IARU has complied with the request and has so advised SHRAK.

### **IARU Welcomes St. Kitts & Nevis as member society.**

The IARU member-societies completed voting on the admission of the St. Kitts-Nevis-Anguilla Amateur Radio Society (SKNAARS) to the International Amateur Radio Union (IARU) as the representative of St. Kitts & Nevis. SKNAARS does not represent Anguilla, which is already represented in the IARU by the Anguilla Amateur Radio Society. SKNAARS thus becomes a member of the IARU and of IARU Region 2.

### **Belize Amateur Radio Club (BARC) Admitted to IARU Membership**

The IARU member-societies have approved a proposal to admit a new representative of the radio amateurs of Belize to IARU membership. The affirmative votes of 55 member-societies were required for approval. 77 member societies voted in favour of admitting the Belize Amateur Radio Club (BARC) with none opposed. There were no abstentions.

Belize previously was represented in the IARU by another organization of the same name. Once the IARU Administrative Council determined that this earlier organization no longer existed, IARU Region 2 accepted an application for membership from the new BARC and confirmed that it satisfied the requirements of the IARU Constitution and the bylaws.

Notifications of several changes in QSL bureaus have been received by the Secretary IARU since the previous issue of the *Calendar*. Changes are posted as received at <http://www.iaru.org/qsl-bureaus.html>. At the end of the listings there is a section entitled "Changes recently made to the following listings" with the latest changes shown first.

## HAMFEST 2018 held in Bengaluru

Hamfest India 2018 was conducted by IIH jointly with Reva University this year at the Reva University Campus, Bengaluru. The event was inaugurated at 4 pm on 29 Dec and concluded at 4 pm on 30 Dec. There were about 1400+ registered delegates, but only about half of them callsign holders. The rest were SWLs and those who were expecting to get the call soon. More than 500 delegates were accommodated within the campus itself in the hostel buildings at a reasonable price. As the venue was about 30 Kms from the city centre, good transport arrangements were made to pickup and drop delegates from all road, rail and air terminals apart from several select points from the city.



Prominent among the guests were the Wireless Advisor to the Govt. of India Shri. Ram Bilas Prasad and the Assistant Wireless Advisor to the Govt. of India Shri. R. C. Malik. Our president, Gopal VU2GMN, was one among the VIP invitees,

As is usually done with Hamfests every year, ARSI contributed a sum of Rs.25,000 to this event as seed-capital. As usual, we had a stall for the promotion of membership. This year as a first time activity, we distributed 5,211 QSL cards during the event to 136 unique callsign holders, from the ARSI QSL Buro. The mammoth task of processing the incoming QSLs was ably handled by Lucky VU2LBW – our QSL manager. VU2XE, VU2GMN and VU3NPI's XYL & kids (Mrs. Shyla, Chirag & Dhruv) and my XYL (Gowri) assisted me in distributing these cards.





We had 10 new membership signups and numerous enquiries from visitors who wished to become members at a later date.

Kiran VU2XE gave a presentation on "Preparing for a Field-Day" which was very well received by the audience.

Amsat India had a very prominent display and demo of their activity which was the star attraction of the event. VU3TYG, Nitin; Subramani, VU2WMY; Somashekar, VU3HCJ were prominent among others manning the Amsat India booth giving out information to curious delegates and the students of Reva University.

The flea market area of the Hamfest had numerous stalls selling new and used / refurbished / homebrew equipment.



Timely refreshments, and good catering arrangements were made to the convenience of all the delegates at the Food court of the campus.

The last activity of the event was the bidding for the next Hamfest 2019 which went to a group from Tamil Nadu; accordingly, the next Hamfest will be in Kanyakumari, the dates to be announced later.

**ARSI IS LOOKING FOR ACTORS,  
DETAILS ON PAGE 28**



## The Awards and Contests Manager sez:

I am glad to announce following key events and contests for 2019. This is keeping our guidelines and past performance in view.

This has been released much in advance so that members can plan for field day events. All rules for field day will be kept same as last year (available at <http://arsi.info/vhf-hill-topping-and-national-field-day-2018/>). This year, members wishing to operate field day are requested to plan ahead for temporary QTH change permission with WPC on their own. I am sure you all will cooperate and make these events a grand success. I will start sending reminders on this event from December.

Contest/Event	2019 Dates
Hilltop and National field day	Feb 23rd to 24th
40m CQVU SSB Contest	April 6th and 7th
IARU HF Contest	July 13th and 14 <sup>th</sup>
40m CQVU CW Contest	Nov 30 and Dec 1st

Sadly – the last CQVU CW (Dec.2018) contest did not have many takers. While the conditions on 40 were indeed rather poor, I could see the *enthusiasm* to get on the band was lacking, if I may say so. We really need to try to popularize CW especially among the new comers. The problem is, most people think CW is difficult to learn. Actually it is not so. What is needed is the interest to learn, Hi The very fact that CW is not needed any more to obtain a ticket adds to the disinterest.

I do not see that the number of CW stations has reduced worldwide. When conditions are favourable and of course, during contests I hear hundreds of CW stations on the air. As far as the bands are concerned, CW is very much alive!

Let's hope this year's CQVU CW contest will have a good number of participants!

Thank you, 73  
VU2XE Kiran



## Contest Corner Update

Happy New Year 2019 !

Last quarter of the year is always filled with lots of events and contests. Mega International contests such as CQWW saw lesser entries from India this year. However, the magical experiences to those who were in the contest were nothing less than yester years. I did enter CQWW contests with special callsign of AT3A from my native QTH near Mangalore. It was a great learning experience for me. Each activity such as putting up Hexbeam antenna, raising verticals, discovering noise sources in the vicinity etc were challenge at this location. But at the end, it was most fulfilling experience. Hope most of other testers also had similar feeling.

On the VU contest front, CQVU 40 CW contest received very poor performance. Suggestions from many hams poured in for improvement. We quickly made announcement of piloting CQVU40 mixed sprint type of contest. We saw many stations coming on air and having fun. We had two slots of 2 hours each for this contest and hams found it more appealing because of limited time boundaries. I am optimistic that this format is going to be big hit for VU contest scene in upcoming years. In 2019 we have decided to make this contest a regular event during three major national holidays - 26th Jan (Republic Day), 15th Aug (Independence Day) and 2nd Oct (Gandhi ji Jayanti) more details can be found on ARSI contest webpage ( <http://arsi.info/cqv-40-mixed-contest-sprint/> )

Congratulations to all participants who entered VU's first ever Sprint Contest on December 22nd/23rd 2018.

Lot of fun events lined up for 2019, starting with 40m CQVU Sprint on 26th Jan and then year's most awaited National Field Day/ VHF Hill topping Day on 23rd/24th Feb 2019.

Wish all of you a very healthy, happy and successful year ahead.

VU2XE Kiran  
Contests and Awards Manager – ARSI

### ARSI QSL Buro stats

Total number of cards: 8148  
Distributed: 5211 Unique callsigns 136  
Unique callsigns for which cards are available: 347  
QSL cards made available at HFI: 6650

Tnx: Lucky VU2LBW, QSL Manager

## PAMBAN ISLAND Activation - IOTA

The team led by VU2NPI calling themselves 'Manic Monkeys' activated Pamban Islands at the Southern tip of India using the special call AT4DK . **AT4DK** was QRL from Pamban Island AS173 - the south eastern *lands-end* for VU (*if you see the map, you will agree, you don't need a rig to QSO 4S7*) between Nov 03 and 04 last. They logged 345 QSOs using all bands, all modes including FT8.



Recognize anyone?



## New bands for the VU ham

**India Gains Three New Bands! As per the National Frequency Allocation Plan 2018, 60 meter band is allotted to VU Amateurs, along with two other bands – 630 and 2200 meters.**

Over a number of years, an increasing number of countries' telecommunications administrations have permitted Amateur Radio operation in the 5 MHz area on a short or longer term basis from discrete channels to a frequency band allocation.

The band has generally been within the frequency range **5250–5450 KHz**, but the whole of this range is not available in all countries; allocations vary significantly from country-to-country.

For us, the 60 meter band is between 5,351.5 – 5,366.5 kHz at 15 W EIRP. On 630 meters, it is 472 – 479 kHz at 1 W EIRP, and on 2,200 meters, it is 135.7 – 137.8 kHz at 1 W EIRP.

***On 30.11.2018, the day the announcement was made on the ARSI reflector, VU2TS was on 5356 KHz and inaugurated the band by having CW contacts with VU2AE, VU2ABS, VU2RPS, VU3UNO and VU2PLL. With propagation on 40 meters non-existent, I strongly suggest we try out the new band for regular QSOs, in spite of having only a 15 KHz wide band. Hi. Some of you may have to tweak the radio to transmit on this band.***

I used the W5GI collinear dipole with an antenna tuner for my 60 meter QSOs, but if you are serious, you can try a standard dipole which will be 88 feet long. Details of a variety of 60 meter antennas are available on the net.

The power on 60 meters is limited to 15W limit ERP - and therefore dependent on your antenna. But, a dipole is presumed to be NO GAIN and so is measured using dBd. This means, with a dipole, if you have 15W output power on the TX I guess it is quite OK as per rules. *(If you use any other antenna with a gain over the dipole, then you need to reduce the TX power accordingly).*

**Important to remember: *If you are looking for phone contacts, then you need to switch to USB on 60 meters!*** Upper Sideband is the norm with all users outside the amateur bands, hence the requirement to use USB on 5MHz to preserve compatibility with the primary users.

There are a total of 68 countries out of the with a 5 MHz/60 meters amateur radio presence.

All these years, the lowest frequency for radio amateurs was 160 m (1.8 MHz). This changed in 1997 when CEPT/ERC Recommendation 62-01E gave radio amateurs access to the 2200 m band (135.7-137.8 kHz). Some years later the first suggestions

to "fill the gap" between the 2200 m and 160 m bands appeared. As the frequency range 526-1606 kHz (535-1705 kHz North America) is assigned to AM radio broadcasting stations, they had to look for a spot around 500 kHz.

In 2005 a few German amateurs obtained 'experimental' licenses to operate on 440 kHz (with prefix DI2). Due to the fact that these experimental licenses did not allow QSO's with other amateurs, they mainly operated as beacons. In 2006 a number of US American, and later also Canadian, hams also received experimental licences in the 465-515 kHz frequency range.

You all are aware, the frequency range 495-505 kHz had been the primary international distress frequency since 1912, but in recent years, VHF and satellite communication was taking over this function and the 495-505 kHz segment became more and more abandoned by the Maritime service. In 2007 UK hams gained access to the 501-504 kHz frequency range. Although the EIRP was limited to 100 mW (increased to 1 W in 2009 and 10W in 2010) and a special permit (Notice of Variation) was required this was an important step. Early 2008 Belgian hams also gained access to the 501-504 kHz range with 5 W EIRP and in the following months and years more and more, mainly European, countries provided an amateur radio allocation near 500 kHz. Starting 2008, an allocation for amateur service near 500 kHz was discussed on CEPT and ITU level. During the 2912 WRC it was decided to give the amateur service a worldwide allocation between 472 and 479 kHz.

Tnx: <http://www.472khz.org/pages/about-472-khz/a-brief-history.php>

The **2200 meter (135.7 to 137.8)** band is the lowest frequency band in which amateur radio operators are allowed to transmit. It was formally allocated to amateurs at WRC 2007 and the band is available on a secondary basis in all ITU regions with the limitation that amateur stations have maximum of 1 Watt effective isotropic radiated power only.

Such low frequency transmissions require specialized equipment – usually home brew. The maximum radiated power is usually limited to 1 Watt (0 dBW or 30 dBm), but even this can be extremely difficult to achieve from practical equipment and antennas. Reception also poses problems due to considerable QRN and QRM.

So far, amateurs who experimented on this band have settled on extremely slow, computer-generated/displayed Morse code as the most common transmission mode. This mode is known as QRSS, where the double 'S' signifies the extreme slowness. *(You think FT8 is slow? Try 2200 meters CW sometime!)*

One of the pioneers in this is the Marconi Radio Club of Newfoundland, VO1NA. You may find the results interesting: <http://www.ucs.mun.ca/~jcraig/500kex.html>

60 meters is great. Why not give it a try? So far, I have not heard any DX on 60 meters – and I blame it on the band conditions.

VU2TS/Ed

## News from Clubs

### Pune, Maharashtra

The Pune hams and amateur radio Club conducted their regular monthly meeting on 4<sup>th</sup> November 2018. Col. Deepak Kateria from the faculty of CBRN (Chemical, Biological, Radiological and Nuclear) Protection's training establishment, Pune - elaborated at length the steps that need to be taken to ensure preparedness of Ham Radio operators to assisting the district and state administration to maintaining communication in case of a disaster.



VU2ASH Ashok Joshi spoke on the essentials of a good ham radio station elaborated on some very fundamental but very essential aspects. VU2UPQ - Udaya Patil took the discussion further in discussing: *VHF, UHF & HF Radio equipment presently available and that is being widely used by VU hams; antennae commonly used, and essential accessories that are needed to make an efficient station.*

**Tnx Udaya Patil /VU2UPQ**





Bharat Scouts & Guides HQ Pune witnessed **Ham Radio** in action along with presentation on Jamboree On The Air by Vilas VU2VPR. Pune Hams with Bharat Scouts demonstrated Radio Scouting on Saturday 20th October 2018.

More than 100 scouts from different schools participated in truly interactive session from 11AM to 2:30 PM. Scouts were very much excited to share songs, good thoughts and self-composed poems with other scouts and guides.



The following Pune Hams participated in the JOTA:

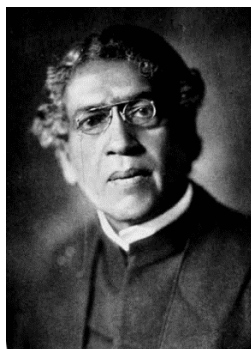
1. VU2VPR Vilas
2. VU3OUM Mangesh
3. VU3UJO Koustubh
4. VU3IMB Praneet;

VU3UEL Dilip Bapat & VU3EQL Chandrakant Majgankar arrived from Alibagh and Talegaon respectively and participated actively.

*Pune Hams are thankful to Bharat Scouts and Guides team working under Mr Pradeep Takawale for their active participation and support making event successful.*

## 160th birth anniversary of Acharya Jagdish Chandra Bose

On 1st December, Radio FTII 90.4 MHz - and Pune Hams celebrated the 160th birth anniversary of Acharya Jagdish Chandra Bose in association with NCRA & IETE.



*FTII is the Film and Television Institute of India.* The program started with the screening of a short film on Sir J.C.Bose. Vilas VU2VPR explained the purpose of motivating the young generation through this program. After the introductory session, he spoke about Ham Radio as a scientific hobby and its popularity in Pune. He explained how the Hams have involved & contributed in the development of radio technology.

SWL Sanjay Chandekar of **Radio FTII 90.4 MHz** spoke at length about **Community Radio** and how it works and invited the participants to use this platform to express themselves and use it for the benefit of the society at large.

The registrar of FTII - Mr. Varun Bharadwaj felicitated all the guests. On this occasion, Mr. Kishor Shende, Chairman of The **Institution of Electronics and Telecommunication Engineers, Pune** was also present. **On behalf of IETE he too felicitated the dignitaries.**

The main attraction of the program was the speech of Dr. Yashwant Gupta, Director of National Astrophysics Center (NCRA) Pune, which is under the Ministry of Science and Technology, Government of India.

His speech was quite elaborate on the subject "Exploring the Universe through Radio Astronomy" accompanied by a slide show - and the audience was curious to know about the 'Search of the Universe' through the Radio Telescopes. In particular, he recalled the persistent efforts of **Dr. Govind Swarup** – a pioneer of Radio Astronomy in India.

He opined, If organisations like Jyotirvidya Parisanstha (association of amateur astronomers) and Ham Radio enthusiasts come together with the experts then NCRA could collaborate with them for any scientific project like study of Asteroids using Radar, and they would get assistance to build necessary equipment.

Mr. Sudhir Phakatkar, a technician from GMRT – the Giant Meterwave Radio Telescope - gave a demonstration of the replica of world's first Micro waves broadcasting equipment and also spoke about the research done by Sir J.C.Bose and his work. After the demonstration people asked numerous questions and shown interest in how the replica works.



SWL Vishwas Kale, an instrumentation technocrat in Pune entertained the audience with Marconi's contribution in radio technology and also told the difference between researches and perceptions of Sir J.C.Bose and Marconi. One's view was totally dedicated for betterment of the society and other's was dedicated to business. Mr. Kale also explained with an example how Marconi's experiment was based on the research done by Sir J.C.Bose.

Recently, The Bank of England asked nominations about which scientist's image should be selected for 50 pound currency notes and thousands of nominations have been received for Dr. J.C. Bose.

Kale also said that as the research was of fundamental importance even after so many years, the cognizance is being taken in such a manner that every Indian is feeling proud.



Ham OM Mangesh Patil VU3OUM from Pune gave a demonstration of how to receive pictures from spaceships i.e. ISS. (International Space Station Picture Reception). When he gave a demonstration of receiving a picture of Sir Jagadish Chandra Bose, audience applauded whole heartedly.

After this OM Shripad Kulkarni VU3YBU spoke about Web Radio or an Internet Radio. A small exhibition of rare radio models were also arranged which were from his collection.

The program concluded by the screening of a short film named "Gungunati Ansooni Awahein" which was about how RadioFTII is doing a job empowering the society especially the woman empowerment.

For more than 100 enthusiast were glued to their chairs for 4 hours. Students and people interested in the subject came from Baramati, Nevase, Belgaum and Mumbai.



***Vote of thanks were proposed by Mr. Vilas Rabde.VU2VPR with special thanks to IETE Pune.***

A team consisting of Prof. Ashwin Sonone, Neeta Tupare, Atul Kulkarni, Prajakta Nadgauda, Mithila Dhende, Harshawardhan Chandekar was behind the success of the program.

***\*A special visit & Interview\* :***

On this occasion, NCRA director Dr. Yashwant Gupta's radio interview was conducted in the RadioFTII's Studio by Mr. Sarang Sahastrabuddhe of Jyotirvidya Parisanstha. NCRA's Director Dr. Yashwant Gupta along with his wife also visited FTII's various departments and was happy to see the shootings and the sound post production work.

Vilas Rabde VU2VPR  
Adviser, IL & FS CapSwap 9822502078

## **Udaya Patil VU2UPQ at Dartmouth, Canada**

During October last, OM Udaya Patil of the PUNE HAMs AND AMATEUR RADIO CLUB - was visiting Halifax VE land and had an excellent eyeball QSO with the members of Dartmouth Amateur Radio Club which is part of the "Emergency Measures Organisations" of the city of Dartmouth.



## **KOHLAPUR, MAHARASHTRA**

The Jamboree-On-The-Air 2018 was celebrated by Dundge High School at Gadinglaj, Kohlapur District under the able guidance of OM Basappa VU2NXM assisted by Amit Zuting/VU2WDE, Salil Tembe/VU3XEN, Makarand Orpe/VU2GUC and four SWLs.

The event was a grand success with more than 500 scouts and guides from six schools in the region participating, and there were about 70 visitors to the station. The scouts and guides exchanged greetings with other scouts and guides on the air. This exposed the youngsters to the fascinating hobby of Amateur Radio.





**Inauguration of JOTA 2018 at Dundge High School**



**Scouts put up the HF Vertical**



**Try out VHF with VU2NXM watching**



## The Art of the Start by Kiran VU2XE

I read/skim through many books and magazines in between my busy morning QTH, family and DXing hours. I love picking some suggestions/ideas from what I read and apply to the topics at hand. One such all-time favourite book of mine is "The Art of the start" from renowned author and entrepreneur - Guy Kawasaki. This article is not about entrepreneurship though hi!. However, getting on to radio is really an Art than the Science and Engineering which goes behind the scene to make one is what I feel! Let us figure that how!

Few years ago, when I was getting back to Radio from off air hibernation period, I had this curiosity to explore the world of Dxing. With some lethargy still running in mind, I dragged myself on to then official ARSICOM yahoo group (now we are on groups.io) and asked a question with subject –"*DX propagation and band openings from India?*". As a newcomer and interested in HF operation, I was expecting some wise advice. I received couple of responses which in a way were not more than general information of bands. What surprising that very few of active hams came out to share their experience. For some hams, active on air may just mean turning on radio for some time during the 40mtr net and closing down. While nets are great and have their critical play in the ham eco system, I had also failed to understand why hams go crazy about DX, Contesting and other aspects of the hobby. Equating to active on air with Nets was so much associated that Monitoring station where I went for my ticket upgrade test in 2015, the officers casually told me that they never heard my call sign during morning 40 mtr nets!. It is true for sure. Anyways, everything has a reason from individual perspectives. For me Radio hobby is electronic experimenter's passport to be on air, improve skills and be competitive as well. It may be different for you the readers. There is no good or bad, it is all OK.

There are stages in the evolution of my hobby. In the early days, when I used to think tucking VHF HT to my trousers and supporting event was indeed real ham radio or going to remote location to put low dipole to just work a station or two during the net was ham radio. Well, all of it has and have a place, but that is not everything!. We have to get past some of these aspects and explore many important areas which actually is progressive and add to individuals and overall echo system evolution.

So, How do we start then?. In one of the recent survey for Field Day asking for interest in Hams, one response mentioned "If someone provides rig, power supply, cable, antenna etc. I would join". How deeply we have gone down the trenches?!. It is sad that some people expect freebies to every walks of life. Is there not a saying "Give man a fish, you feed him for a day. Teach him how to fish, you feed him for life"?. This is hobby and not a forcible act where someone has to only operate one way or other. Ham radio has regulations, operating procedures, clubs etc. However, what is more

important is that it is “Individual’s own interest”. It boils down to the question each one has to introspect on for what reason they are in this so called hobby?.

So, **number 1 rule** is ***setting up the Self Goal***

Goal can be anything such as “I want to learn about RF electronics and signals on air” , “I want to be a good DXer or Contester” or “I love to make friends globally” or “I want to help people during disaster event” etc. At the moment of setting the goal itself, one will be clear on whether this hobby is right for them or no. For example, if one is just electronics enthusiast or maker, he may not always intend to get Ham Radio ticket. Infact, there is ocean of electronics hobbyists outside radio hobby. But on the other hand if one is electronics enthusiast and interested in radio communications, there might be an opportunity. It is upto one to explore the possibilities!.

Goal drives the next phase of this art and that is **Willingness** to learn. Probably, Goal and Willingness can act interchangeably. Willingness drives one towards the goal and eye on Goal keeps the willingness ON hi! . Willingness diminishes boundaries and restrictions. It is this willingness to become better at something whether it is operating, homebrewing, contesting etc., that pushes us towards greater expanse of likeminded people and advancement. My willingness pushed me to ask some of silly questions to the forums. I keep my mind open for ideas, advices and try to incorporate them in my shack and operating. There are moments when one is looked down as well. Be prepared for it. It is rightly said” Where there is a will there is a way”. But ... that way has to be traversed by taking actions.

From willingness, we then move towards **Actions**. I hear lot of people talking about that they are willing to do something, but not getting time or they lack of ideas. Actually, when we do not act on the Will, the lethargy to not act gets stronger than to act. Taking that first step is always challenge. If I remember, when I first got ticket in 1997, I had will to go on air, but could not act on that. Because that time, I had to prioritize my energy towards morning QTH. Also there were limited resources in the form of affordable transceiver kits compared to today. This inaction resulted in diminished will over the period as well for next few years. The Will and Actions has to resonate in time domain to be in general successful isn’t?!

Actions then have to go into mode of Continuous Improvement or CI as we call in industry hi!. Why?. Because knowledge needs refinement to keep one out of outdated technologies, techniques. In one of the forums where I am subscriber, a member commented that there is lot of spoon feeding nowadays. He went on to say that in their days, they used to wander in the markets/junk yards for parts, look for specification catalogs, go on air each day to just fix an instruments with fellow ham etc. Those were the great times when elmering was much actively pursued. But, times have changed, we now live in a world where most of the legwork now has been converted to googling and knowledge networks Hi. One has to be really lucky to find an elmer nowadays.

But Ekalavyas are nonetheless progress if they have zeal. But wait, there is more to understand from this technological transformation we are undergoing. There are hundreds of elmer Dronacharyas imparting knowledge and tribal secrets all the time on the internet at your local clubs etc. Question is, have you searched for them hi!. Whether learning new operating technique or building directional coupler for SWR measurement, it is no longer art of the black room of niche crowd of yester years. If one has willingness to learn and act, before you realize you will be on knowledge steroids for sure!

To summarize, there is no black art or niche crowd theory for kicking yourself and go on air today. The Art of the Start for hams is all about Goals, willingness to learn, taking actions and continuously improving skills at practice. With access to enormous amount of connected knowledge wealth available via internet sources, it is time to stop cribbing and make advancement!

Do we have any questions such as what I asked few years ago- “*DX propagation and band openings from India?*” if yes, ask them on our ARSI groups.io forum or global forums. I am sure question will not go in vain for the seeker.

And you thought there was a magic pill..!

Cheers

Kiran VU2XE

Few awesome resource recommendations:

Amateur Radio Electronics W2AEW Alan Wolke :

<https://www.youtube.com/user/w2aew>

Interested in everything in electronics? : Dave Jones

<https://www.youtube.com/user/EEVblog>

HamRadio Workbench Podcast <https://www.hamradioworkbench.com/>

ARRL's Doctor is in Podcast <http://www.arrl.org/doctor>

Wisdom of stalwarts from great Interviews at <https://www.qsotoday.com/>



# Homebrewers and Contesters – quest burns in both!

By Kiran VU2XE

Some of my homebrewer friends tell me that they enjoy solder smoke much better than operating. Building transceiver from scratch or kit and making few casual contacts is done deal mostly. For many electronic enthusiasts that is the end of build project. But wait, it is like homebrewing a custom made bike and going to backyard for having fun isn't?. Probably one can think of taking the same bike for adventure off road drive, or on a high way!. That is what I feel like when I take my little projects to contests. I put them into harsh weather test. Does is not sound like a plan?.

Any project has requirements, design goals and schedule associated with it. We also have some extreme test for the end products. Radio Contesting provides these opportunities. For example, any little project I get involved (even if it replacing Coax connector), is all driven by contest dates in mind. What it naturally does is kicking out lethargy of delaying the projects for other day. One starts working backwards from the contest dates and ensures that all projects are ready on the shack at least a week or two prior to contest.

And talk about performance testing!, There is no better time than a typical contest day for taking your gear through all the tough conditions one can imagine probably better than best of the best advanced lab simulations. Hundreds of strong adjacent signals, weaker signals calling QRP etc. there is something or other each ham can learn just by monitoring them.

From serious tester's point of view, homebrewing becomes a must at one stage. It gives them competitive edge. Especially in VU where we have to import equipment paying lot to shipping and customs, situation drives us to design and/or build our own equipment. Come on, one need not be electronic expert to start home brewing, it is just a learning mind set and ideas at hand.

So, home brewer friends - Do not hesitate to be on the air during contests, they are made for ultimate thrill. When you dip into it and survive the game, you will definitely feel much higher purpose for your loved projects! And fellow testers, get your competitive juices to next level by flowing some solder at shack!

All the best in your projects

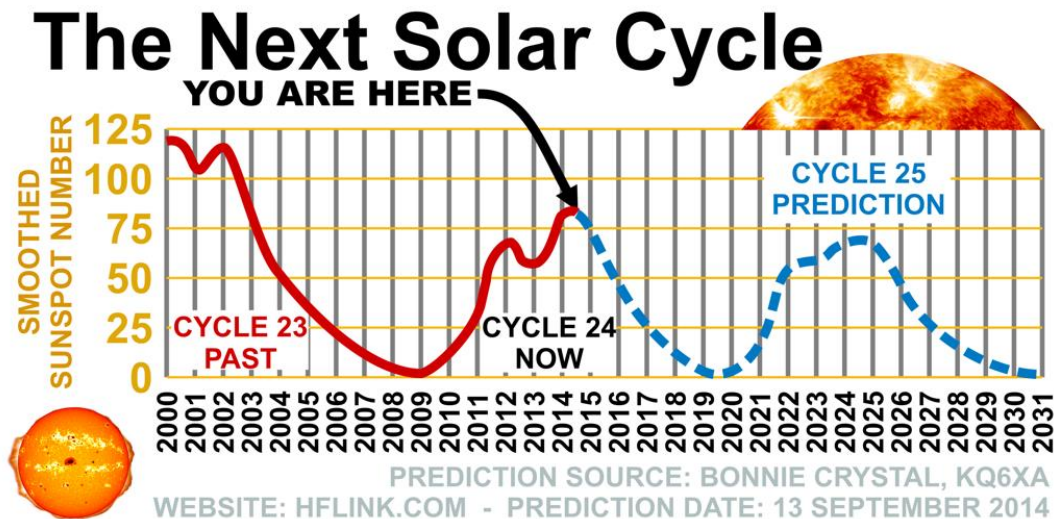
VU2XE Kiran

P.S: Do you have any construction projects around your shack? Ideas/tips to share? Please send them across to editor [at] arsi.info



## SOLAR MINIMUM has arrived

The Sun has entered the deepest solar minima right now. The 11 year solar cycle is the periodic change in the Sun's activity including the changes in the number of sunspots, solar flares and so on. The current solar cycle began in January 2008 and is now on track to have the lowest recorded sunspot activity since accurate records began in 1750. The last grand solar maximum peaked in 1956.



Every 11 years or so, sunspots fade away, bringing a period of inactivity and this is known as the solar minimum. However, while solar activity such as sunspots and solar flares subside during solar minimum, solar activity continues, it simply changes form. One of such change is the development of 'coronal holes' that are vast regions of the photosphere where the magnetic field intensifies resulting in release of solar-wind.

Solar wind flows from these coronal holes in all directions, and affects the Earth's magnetic field resulting in geomagnetic storms, auroras and **disruptions in radio communications**. Coronal holes are observed throughout the solar cycle, but they last for a longer time during solar minimum – sometimes as long as an year. In these periods, the effects of Earth's upper atmosphere on LEO satellites change too.

Normally the UV radiation from the Sun heats up the upper atmosphere, and the satellites in low Earth orbit experience more friction as they skim through the very thin atmosphere. This friction creates causes 'drag' on account of which satellites lose speed and in turn, altitude - over a period eventually re-entering the atmosphere and falling back to Earth. However, during solar minimum, Earth's upper atmosphere cools reducing the normal amount of drag. Space debris in low Earth orbit that would have normally re-entered the atmosphere to be burnt up, will tend to orbit for longer periods, increasing the amount of debris and number dead satellites in the region and this might be hazardous to the active satellites and even the International Space Station that is orbiting the Earth at around 400 kilometers.

Cosmic rays are high energy particles accelerated toward the solar system by events that occur in deep space – like supernova explosions and other violent events in the galaxy. Normally, our magnetic field shields us from this radiation, but during solar minimum, the magnetic field weakens, posing increased threat to astronauts.

The existing fleet of spacecraft studying the sun includes the Solar Dynamics Observatory (SDO), the Solar and Heliospheric Observatory (SOHO) and the Solar Terrestrial Relations Observatory (STEREO), which provide continuous solar observations that are currently enhancing our knowledge of the sun. A new NASA probe named PARKER / Solar Probe Plus is approaching the Sun right now and is expected to swoop to within 6.5 million kilometers of the **sun's** surface, facing heat and radiation like no spacecraft before it, enabling scientists to understand the heating of the solar corona and to explore the physical mechanisms that accelerate the solar wind and energetic particles. This would definitely improve future solar activity forecasts and help us more accurately predict the impact has on Earth. <http://www.planetary.org/blogs/jason-davis/parker-solar-probe-preview.html>

## Amazing Christmas 70cm EME contacts

On the 22 of December, two amazing contacts took place on 70cm EME (moon bounce).

Normally contacts of this nature are only possible with the smaller station running high power levels but MXØCNS used a single 17 element *DG7YBN GTV Yagi* with just 60w power at the antenna feed completed two contacts first with Peter PA2V 4x27 el and Sverker SM7THS 8x25 el.

Tom MØABA via *Southgate ARC news*

## LOTW RECORDS THE BILLIONTH CONTACT

As of December 19, more than **1 billion contact records** have been entered into ARRL's **Logbook of The World** (LoTW) system. And, while 1 billion QSO records represents a significant milestone, a more important statistic may be the nearly 187 million contacts are *confirmed via* LoTW over its 15-year history.

Lucky OM: The one billionth record was uploaded by 7X3WPL, the Sahara DX Radio Club, at 23:32 UTC for a 20-meter SSB contact with Davide Cler, IW1DQS, that took place on December 28, 2016. The upload resulted in a match (QSL).

## **TID BITS**

- Art, NN7A, will be active as **V31JZ/P** from South Water Caye Island, IOTA NA-180, Belize, 31 January to 6 February 2019.
- Mat, DL4MM will be active again from Aruba 22 - 30 January 2019, as **P4/DL4MM** and **P4ØAA**.
- Operators Fred WW4LL and Mike NN9DD will be active from Bonaire (Leeward Antilles, Caribbean) as **PJ4/WW4LL** and **PJ4/NN9DD**, respectively, between February 4<sup>th</sup> and 10<sup>th</sup>.
- Operators John/9M6JC, Kom/9M6KOM, Nur/9M6ZAE, Faiq/ 9M6ZIM, Choigonjav/JT1CO, Krassimir/K1LZ (team leader), Jeffrey/K1ZM, Patrick/KK1ZM, Adrian/KO8SCA, Nikolay/LZ1NK, Andrey/LZ2HM, Atilano/PY5EG, Dmitri/RA9USU, Roman/RN5M, Adi/S55M, Chris/VK3FY, Hrane/YT1AD and the honorary Brunei members (Tamat/V85TL and Azril/V85AN) will be active as **V84SAA** from Sera Kanangan Beach in the Tutong District, Brunei, between February 7-18<sup>th</sup>, 2019.
- Members of EIDX Group will be active as **5V7EI** from Main Street, Togo, between March 14<sup>th</sup> and 26<sup>th</sup>, 2019
- All AM Medium Wave stations in Belgium and the Netherlands have pulled the big switch on December 31 2018
- The Swiss national radio society Union Schweizerischer Kurzwellen Amateure (USKA) will celebrate its 90th anniversary in 2019. Throughout the whole year, HB9-stations may use the prefix HB90, together with their suffix; and HB3-stations likewise the prefix HB30.
- In South Sudan, Diya, YI1DZ, is active for the next six months as Z81D. He will be on 80 through 10 meters using SSB and some Digital modes. QSL via OM3JW. He will also use ClubLog and LoTW.
- In Antarctica, Alex, RD1AV can be heard as RI1ANV operating from the Vostok Station. He will be at the base station until February 2019. QSL via RN1ON, direct, by the Bureau or Club Log's OQRS.
- Journey over for AMSAT's Fox-1 Cliff/AO95 satellite due to major problem with its receiver.

## **SD logging App now free**

With effect from January 1, version 21 of the logging App **SD** by EI5DI is free and unrestricted. SD supports RSGB, UKEICC and IRTS HF contests, and hundreds of others worldwide.

SD runs on Windows, and on Linux with Wine, and on Raspberry Pi 3 with Wine and Exagear (from [eltechs.com](http://eltechs.com))

No registration or key file is required. SD will continue to be supported and updated, and users can request help by emailing sd-user (at) contesting.com

Further information on SD is at <http://www.ei5di.com/>

## MOST WANTED DXCC LIST

VU4 and VU7 are 56<sup>th</sup> and 57<sup>th</sup> respectively on the DXCC Most Wanted list. Here is the list of the first ten Most Wanted:

1. P5 DPRK (NORTH KOREA) *(wonder what DPRK represents?)*
2. 3Y/B BOUVET ISLAND
3. FT5/W CROZET ISLAND
4. BS7H SCARBOROUGH REEF
5. CE0X SAN FELIX ISLANDS
6. BV9P PRATAS ISLAND
7. KH7K KURE ISLAND
8. KH3 JOHNSTON ISLAND
9. VK0M MACQUARIE ISLAND
10. FT5/X KERGUELEN ISLAND

*I have FT5/W, FT5X, 3Y/B, and KH7K in my log. How about you?*

## BRITISH YL GROUP PREPS FOR 40TH BIRTHDAY CELEBRATION

As it reaches the age of 40 in April of this year, the British Young Ladies Amateur Radio Association is marking the occasion throughout 2019. The YLs are holding a rally in Blackpool on the April anniversary date and there will be a year-long special event station that includes international participation. The desire for YLs to contact other YLs on the air is what draws many into its growing membership



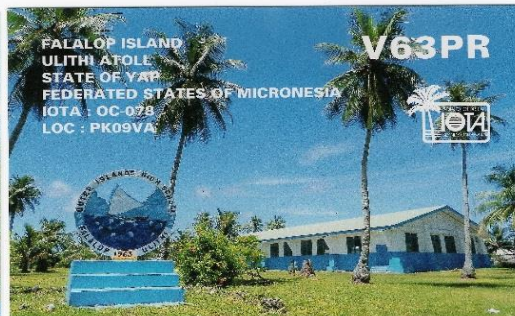
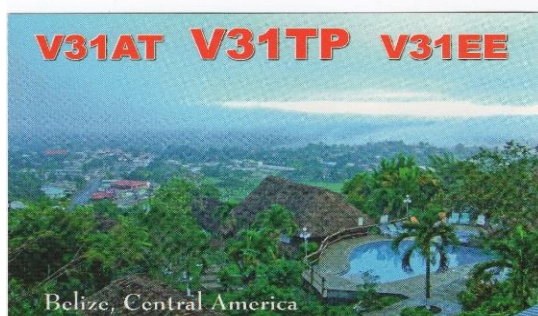
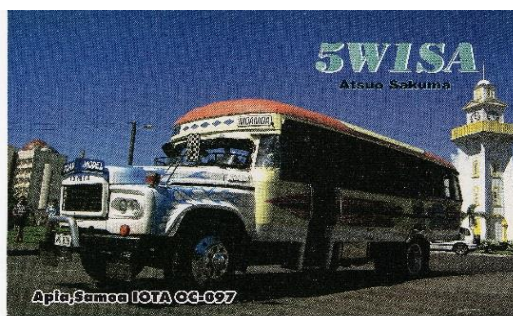
Barbara Dunn, G6YL was the first female British amateur to obtain an amateur license. The year was 1927. Having been quoted as saying, "I don't like phone," her station was CW only.

**If you like acting, and if you are keen on acting, act now! Pay up the dues owing to ARSI and be a dues-paid-member!**

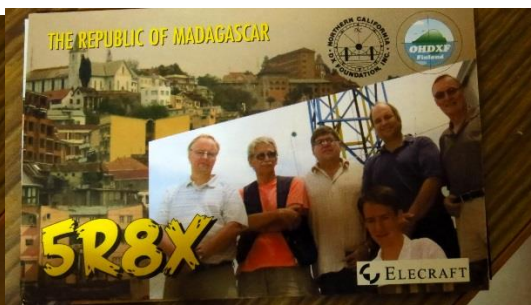
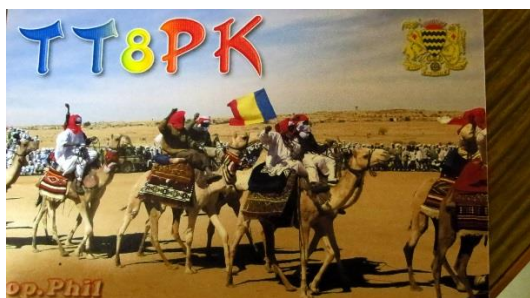


## QSL cards album

Kiran VU2XE has sent a few cards from his collection – here they are:



Here are a few from VU2TS:



I have in my collection QSLs from countries that don't exist anymore!

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