

## **President's Message**



Last time I wrote about the success we had in getting the security clearance before issue of an amateur radio license scrapped. Reports have started coming in of speedy disposal of new licenses. New license applications can be made after the pass result is in hand and no further communication needs to be obtained before the application, with all documents and the DD is submitted. It is re-emphasized that documentation MUST be done very carefullyplease see <u>www.arsi.info</u> for the list of documents and how they should be submitted.

The ARSI field day that took place was not a great success with just a few participating and some not submitting their logs. We will need to reassess if we should go ahead with this the next year.

This time of the year several small hamgatherings take place and the Trichur, Kollam and Adur were held with good support. A couple were also organised at various other centers in Mumbai and Kolkata to commemorate World Amateur Radio day. Such gatherings are very welcome to keep the image of amateur radio alive in the public mind. The World radio Conference 2019 is the next major event that IARU will be targeting. As you may be aware IARU had some success in getting access to a new band – the 5MHz band. A small segment was officially approved for amateur radio use. Indian hams will gain access after the process in the NFAP, which unfortunately takes time. Several countries already allow use of this band at different levels of access and ARSI is working towards getting access here in India also.

The 6M band- 50 MHz- is in use in various countries. IARU is working on getting this band officially released for world-wide use by hams and the process has already started with a working Party meeting held recently, when the whole process has been initiated. Indian hams are allowed operation to a small extent on this band.

As it is known only country administrations have a vote at WRC meetings and so IARU has to work hard and get support from the administrations worldwide.

Preparations for HFI 2016 at Mount Abu are gathering pace and details and registrations are now open. Visit <u>http://hfi2016.mhrc.in/</u> for details. A big event is being planned and promotions were done at the Dayton Hamfair just concluded.

ARSI welcomes suggestions from all on how we can support and promote amateur radio activities- please write to the secretary and we will take up whatever is possible.

73,

Gopal VU2GMN





## From the Editor's desk



If any of you have heard VU2TS operating CW on various bands recently – IT'S NOT ME! Apparently there is a PIRATE using my callsign.

I received dozens of E-mails congratulating me for making all those contacts at times when there is absolutely no propagation on HF bands. I received some QSLs too! DXers think I am using some "magic" antenna, to be heard at all kinds of unearthly hours on impossible bands, Hi

Please spread the word around – not contacting him/her is the only way to stop this. I have written to various publications too.

As I write this, the Sun has been without any sunspot for seven days – we can only imagine how the propagation would be.

I have received only two reports on the FIELD DAY - from which we can see that the conditions were really very poor. So hats-off to the teams who went ahead in spite of quiet bands and made few QSOs in the spirit of the field day. Hopefully more teams will participate next time around..

Enjoy the JULY issue!

73, Ganesh VU2TS



### GURGAON, HARYANA – VU2UUU

As the mercury soared to 42 degrees Celsius in Gurgaon, hams geared up for **the ARSI Field Day 2016** armed with WPC permission to operate VU2UUU Field Day call sign from POWERGRID campus. The early birds set-up the ARSI banner, Amateur Radio Call Sign Prefix Map, HF Antennae etc.



VU2RKS – Ramesh Krishnan, installed the state-of-the-art Telescopic HF Antenna with proper ground. VU2UUU – Kaustav Saha, VU2ATN – Atanu Dasgupta, along with other hams present also put up two horizontal homebrew 40 m and 20 m dipoles.

VU2YK – Rahul Kapoor, lovingly called Yellow Kite, too joined us along with VU2ASB – Ashok K. Singh. VU2YK had set up a fully portable battery powered station. Amidst the very poor propagation condition, the first CW QSO was made. Kudos to VU2YK's excellent Morse code skills! The 20m and 15m bands opened around 1530 hours IST. VU2UUU had set up another radio transceiver connected to the antennas through a manual ATU.



Sumptuous lunch was served in the restaurant adjacent to the venue at around 2 PM so that hams could operate in the afternoon session with real gusto!

Ham Radio News



During the afternoon, few more hams from Delhi and Gurgaon, namely, VU2KD – Soffi, VU2VUV – Tarveen Saha alongwith her harmonic Eshaan and VU2PGD – Anurag Aggarwal with his harmonic Aaryan, VU2NW – Kuldip Chand Bhardwaj, VU2VAB – V. K. Arya, actively participated in the Field Day.

Few locals/onlookers too joined us to understand Amateur Radio and to know more about Field Day. By 1730 hrs, the total tally was 16 QSOs.

73 de Rajesh VU2OEC

### SURATKAL - MANGALORE - VU2REC

All our energies went into overcoming the extreme humid and hot weather. The FIELD DAY station was set up near the beach at the NITK Yoga Kendra.



Electrical power and warm shelter were the only resources we availed. We setup a 20/40 inverted vee antenna and used a IC-775-DSP HF transceiver.



VU2TAO, VU3AUH on Mic and VU3BUN



DEMO by VU2MTT

We had a good number of visitors who were new to the hobby. They had a good demo and introduction to ham radio. Some distinguished visitors including the Director of NITK, the Deputy Conservator of Forests, Kudremukh, visited the FD station.

73,-de--VU2SBJ/Srikanth—and VU3BUN/Manu

## PUNE, MAHARASHTRA

#### World Ham Radio day celebrations at Institution of Engineers Pune

April 18, 1925, the International Amateur Radio Union (IARU) was founded in Paris, with ARRL Co-Founder Hiram Percy Maxim, 1AW, as its first president. The primary purpose of World Amateur Radio Day is to highlight Amateur Radio and its benefits to countries and communities. it's an opportunity for IARU member-societies to demonstrate Amateur Radio to the public and make friends with other amateurs around the world.

The World Ham Radio day's 91<sup>st</sup> anniversary was celebrated by Institution of Engineers along with College of Engineering, Marathi Vidnyan Parishad and Vidnyan Bharati.

Er Vasant Shinde, Secretary, Istitution of Engineers Welcomed Chief Guest, Dr Pramod Kale (ex Director ISRO) by presenting a memento.

Along with Mr Milind Bhagvat VU2MSB I conducted a live demo of Ham Radio. The Radio contact was established with Dattaji VU2DSI, Ahmednagar, who was celebrating world heritage day in Hampi, Karnataka on Ham Radio same day. Dr Pramod Kale, Er Vasant Shinde, Vinay RR and many others spoke with Dattaji and and exchanged greetings on Celebration of World Heritage Day in Hampi on Ham Radio.

The chief guest Dr.Pramod Kale, ex- Director ISRO (SAC) delivered a keynote address on 'India's Communication Satellites. Dr Kale took overview of India's past and future communication satellites. He also stated importance of Ham Radio as a hobby for developments in Communication technology for "Make in India" projects.



The main agenda of this event was **focusing on significance of world Ham radio day** and presentation of COEP's micro satellite (990 grams) highlighting features of team Swayam.

The COEP team demonstrated end-to-end communication on Ham Frequencies and shared details of the micro satellite they built under the guidance of ISRO. The satelite Swayam will be launched on 29th May 16 by ISRO with Cartosat.

The event and High Tea was sponsored by Ajinkya DY Patil University's Ham Club VU2DYP & the entire activity was managed and handled by COEP students.

Regards

Vilas Rabde VU2VPR, Co-ordinator

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#### **GWALIOR, MADHYA PRADESH**

Amateur Radio Club Gwalior conducted a Morse Code Training for forty "visually handicapped" YLs between the age group of 8 years and 18 years in Atma Jyoti Kanya Vidyalaya, Gwalior, for 18 days. It is one of the unique plans so as to reach this hobby to people of all walks of life who are interested, but cannot afford it.

The training started on 18 April and ended on 6 May 2016. It is quite interesting to note that all the girls picked up Morse signals very efficiently and quickly.



The first day started with introduction about the morse signals but after that, all the girls started learning very fast and so in 18 days they could send and receive all the alphabets. In the meantime they all leant several new English words and also sentences. That increased their vocabulary as well as control over the language.



The training was so successful that their 2 teachers also learned Morse codes. The members of Amateur Radio club Gwalior were happy to see the progress. The members who supported during the program were OM Kailash Agrawal VU3CTP, OM Kamal Raj Singh VU3RAE, OM Avinash VU3XAY, OM Narendra Tuniya VU3TNG, OM Aniket VU2LOL and SWL Sunil Goyal and few more SWLs. Training certificates were distributed to all the girls.

We hope after the vacations in July we will start the classes again.

73 de Jayu S. Bhide VU2JAU Gwalior.

## **GUJERAT**

Dear-Hams,

To continue ham awareness drive in the region, I successfully conducted 'HAM RADIO FOR GENX' (Workshop with Exhibition & Demonstration) at prestigious BH Gardi College of Engg. & Technology - Rajkot on 2nd April-2016.

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More than 200 engineering students plus many faculties enjoyed & learnt various aspects of Amateur Radio. It was full day program (11 to 5) covering in-depth Ham Radio introduction, documentary video,

Ham Radio News



concept of SatCom, Receiving technique of SSTV Images, RTL SDR, EmComm, interesting Ham-events-etc.



Also a small exhibition was arranged which helped students to view & understand Ham stuff practically. The key attraction was to have live demo of SSTV & Morse code along with Voice (modulation test). Students were excited to see line by line image receiving on projected screen during SSTV demo. Similarly Morse message was decoded too.



I tried to do justification to the number of queries during various sessions. Overall it was knowledge gaining program for students with great-fun.



am thankful to Prof. Parmar Sir (HOD - EC Dept), Prof. Joshi Sir, Prof. Manish Sir &

Volunteers team to extend full cooperation to make event successful. I did get nice company & support of VU3PLJ Prakash, VU3EXP Sakshi, VU3NMQ Ankit & my XYL Kiran during whole program.

Thanks-&-73

VU2EXP Rajesh.P.Vagadia-Rajkot-VU2EXP Regional-Coordinator.West-Zone AMSAT-INDIA

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View attachments on the web

## LUCKNOW – UTTAR PRADESH

HAL SCOUTS GROUP AMATEUR RADIO CLUB





## NASA sponsored special programme for HAL School Students- A report

11th May was being celebrated as National Technology Day in India. Students of The HAL School, Lucknow celebrated this day in a very different manner.

A programme was organised at School on 12th May 2016 in coordination with HAL Scouts Group Amateur Radio Club Lucknow in which the students asked (VU2LKO) questions directly with Astronaut Tim Kopra KE5UDN who is on board International space Station. The briefing about the programme was started from K6DUE - Amateur Radio Club, Washington DC USA and by the programme mentor Mr Eskil SM5SRR from Sweden at 1240 Hrs IST through teleconferencing.

At 1341 Hrs IST (0811 UTC) when the ISS reached over Washington DC our contact was established with Astronaut Tim Kopra KE5UDN who was at ISS module NA1SS.

Ham Radio News





School teacher Mrs Shilpa Tripathi PGT Physics was coordinating the programme from School side and Mr Dinesh Chandra Sharma (VU2DCT) Secretary HAL Scout Group Amateur Radio Club (VU2LKO) Lucknow was ARISS programme coordinator for Lucknow region. The ASIA- Pacific coordinator of the programme was Mr Satoshi Yasuda 7M3TJZ from Japan.

To fulfill Science, Technology, Engineering, and Math (STEM) goals for students' education, an unique programme has been started by NASA and other space agencies including Canada, Russia, the European Partners, and Japan & other international partners like AMSAT, ARRL, RAC etc. known as ARISS.



ARISS (Amateur Radio on International Space Station) offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crew members on board the International Space Station. Teachers, parents and communities see, first hand, how Amateur Radio and crew members on ISS can energize youngsters' interest in science, technology and learning.

Such scientific and highly technical event was organized for students. for the first time in Uttar Pradesh.

The students asked following questions:

1. Sandeep (14) - Is the atmosphere of Mars suitable for living?

2. Akash Verma (13) - Did you ever see aliens in space?

3.Shudhanshu Pandey(13)- Have you measured the temperature outside of ISS during space walk?

4. Rishabh Vishwakarma(15)- What are your three favourite things about being in spaceship?

5. Astha Negi (14) - What challenges have you faced in space?

6. Anushka Gupta(14) - How is the atmosphere of Mars?

7.Sakshi mishra (14) - Did you find any adjustment problem during your journey?

8. Abhay Srivastava (13) - Which city (area) on the earth is most illuminated as you have seen from ISS?

9. Ashwin Vaish(14) - What do you want to do in future?

10. Abhinandan Awasthi (14) - What we should do to become an astronaut?

11.Ananya Mishra(13) - What was your inspiration for being an astronaut?

12. Riya Chaudhary(13) - Have you seen solar / lunar / earth eclipse from ISS?

13.Richa Singh(14) - How will the garbage affect the earth?

14. Kalash Mishra(15) - Which type of antenna do you use to communicate with us?

15.Shekhar Shah (14) - Why do you wear special suits? What will happen if you do not use this suit?

16.K Rajshekhar (16) - Does microgravity make your body tired or sick?

17. Shubham Pathak (16) - What will happen if we fire a bullet in space?

18.Jatin(14) - Do you bring your favourite items from earth?



19. Akash Saxena (15) - Have the astronauts of Apollo 18 seen any alien? Is this true or false?

20. Mohd. Umair (15) - What do the stars look like from up in space?

#### Dinesh Ch Sharma, VU2DCT Secretary

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Lucknow Calling Frequency : 145.200 MHz with 123 Hz CTCSS Tone

We feel proud to serve the Nation through HAM Radio.

# ANDAMAN DXPEDITION 2014

## VU4KV

The VU4KV expedition was awarded a beautiful plaque in recognition as the 2014 CQWW-CW as winner - Contest Expedition as Multi Operator Station.



Congratulations to the team!





Joaquín Solana, XE1R Editor de Noticias - News Editor - IARU R2 news@iaru-r2.org

Radio amateur operators who will visit Brazil for the 2016 Rio Olympic Games will be able to be on air without bureaucracy.

During August and September any foreign amateur will be able to operate in Brazil regardless of the existence of reciprocity agreement between countries. No IARP or CEPT license is necessary as well. No fees are required.

The Brazilian Amateur Radio League - LABRE has filed a request and obtained this special permission from ANATEL, the Brazilian Telecommunication authority.

The amateurs who want to operate in Brazil must send to LABRE the following documents

- Copy of a valid passport (identification pages)

- Copy of amateur radio license of his/her country

List of cities in which he/she intends to operate and the respective periods
Email address for contact

The documents must be scanned and sent to <u>executiva@labre.org.br</u>

## IARU becomes custodian of Operating Standards booklet

Over the last eight years, the booklet 'Ethics and Operating Procedures for the Radio Amateur' has become a respected work describing the best standards of operating on the amateur bands.



Translated into most major languages, the booklet by John Devoldere, ON4UN and Mark Demeuleneere, ON4WW, is a valuable reference work for all radio amateurs.

The booklet can be found at <u>http://www.hamradio-operating-ethics.org/</u>

Mark and John recently contacted IARU, explaining that they felt it appropriate for IARU to become the custodian of the booklet into the future, with the scope to adapt and update it to ensure it remains relevant and current.

The IARU Administrative Council accepted this offer with gratitude to John and Mark for the work they have put into the document. On May 5th 2016, Mark and John met Don Beattie, G3BJ, President IARU Region 1, in Brussels to officially hand over the document. IARU will now carry forward the work in future years to ensure its continuing relevance and currency.

## **Ocean Floater - ZL1SIX**

The radio amateurs down under are about to launch a marine buoy into the South Pacific Ocean.

The payload contains a low power JT9 beacon transmitting in the 30m band. The beacon is already QRV.

Tracking the progress should be most interesting; we might learn a few things about sea currents and propagation. http://www.gsl.net/zl1rs/oceanfloater.html

Click on this link for <u>the latest WSPR</u> <u>spots</u> while on test.

Thanks to **Pierre, ZS6A** for the above information via Southgate ARC





On April 21, 2016, EUROPEAN SPACE AGENCY's Education Office set a challenge for the worldwide radio amateur community to start listening out for three new orbiting CubeSats. The results have now been released.

ESA's Education Office published the transmission frequencies of the student-built satellites that were about to be launched as part of the **Fly Your Satellite!** programme and invited the radio amateur community to listen out-for-them.

The first three radio amateurs to send a recorded signal from any of the three CubeSats - **AAUSAT4**, **e-st@r-II or OUFTI-1** would receive a prize from ESA's Education Office. Hundreds of radio amateurs from around the world joined in the friendly competition.



The CubeSats started sending signals after their release from the Soyuz VS-14 rocket and the triggering of their automatic activation sequence. Participants from Russia, USA, Poland, France, Belgium, Netherlands, Brazil, Italy, Denmark, and more tuned their receivers-and-listened.

Thanks to skill and patience on the ground, the winners come from Russia, the United States of America, Germany, and the Netherlands.



Contact with the first CubeSat came at 00:53:51 UT on April 26, 2016, within an hour of its separation from the launcher. **Dmitri Paschkow R4UAB**, Russia, heard the signal from OUFTI-1 using two receiving stations, in Kemerovo and Ruzaevka. Upon hearing OUFTI-1, he communicated the news immediately. "I understand that the students are anxious [to hear from their satellite] and decided to please them!" says Paschkow.



Just over an hour after the first signal from OUFTI-1 was recorded, the next CubeSat checked in.

AAUSAT-4 was heard over California, US, by Justin Foley KI6EPH of California Polytechnic State University. He had a personal interest in the mission because some of his colleagues had developed the P-POD deployer that was used to eject the CubeSats into orbit.

He was ready at the receiver from the moment of deployment but heard nothing on that first pass, probably because the activation sequence had not yet completed. The signal came through on the second pass, arriving at 02:02.UT.

Then the wait began for e-st@r-II. At 05:40:58 UT, something dimly lit the screen of **Mike Rupprecht DK3WN** in Germany. But something was not quite right. It certainly looked like a signal from the last remaining CubeSat, but why was the message so faint? It galvanized the amateur radio community to look-harder.

Jan van Gils PEOSAT had to wait until May 2 at 16:38:05 UT to receive a signal from e-st@r-II that was strong enough to be decoded. Why e-st@r-II was only transmitting weak signals is under investigation, but the most important news is that all three CubeSats are functioning and transmitting, and their signals can-be-decoded.

A special mention goes to a young radio amateur who scored a personal best.



Twelve year-old space enthusiast **Matteo Micheletti** from Belgium caught the OUFTI-1 signal with a portable log periodic antenna and a portable-receiver. His triumph occurred on May 1, 2016 between 17:34 and 17:39 UT.

To mark their success, the radio amateur winners will each receive a **Fly Your Satellite**! Poster, a goodie bag and a scale 1:1 3D printed model of a CubeSat from ESA's Education-Office.

Read the full ESA story at

<u>http://www.esa.int/Education/CubeSats\_</u> <u>Fly\_Your\_Satellite/CubeSats\_competition\_win</u> <u>ners</u>

## ISS-BOUNCE signals from Europe to North America

After two weeks of preparation **Tim, G4LOH** in Helston, Cornwall, England Grid IO70jc and **Roger, VE1SKY** Bridgetown, Nova Scotia, Canada Grid FN74iu used FSK441 to try a Brendan Quest style reflection off the International Space Station (ISS).



Employing AMSAT satellite software, both stations aimed at the calculated grid HO11nl for a 144.175 MHz QSO attempt with a mutual window of less than 1 minute.



At 12:22 UTC May 2, 2016, VE1SKY copied G4LOH at a distance of 4,441 km. The signal decoded once completely by 'cursor clicking' and then partially. This was the first received ISS signal bounce from EU to NA, and the first 'intentional' signal by ISS reflection received in any direction across the North or South Atlantic (screenshot is available at QRZ.com/VE1SKY). The reception is being verified as a possible DX record for satellite reflection.

Tim has since been received twice in the much closer GN37 grid by VO1HP using Morse code.

This could be first E-ISS-E contact? /Ed

# "LightSail" 2 will transmit Morse code from space

LightSail<sup>™</sup> is a citizen-funded project by The Planetary Society, USA - the world's largest non-profit space advocacy group. They're sending small spacecraft – CUBESATS - into Earth orbit, carrying large, reflective sails measuring 32 square meters (344 square feet). They have successfully completed a test flight in June 2015 that paved the way for a second, full-fledged solar sailing demonstration in 2016.

During last year's LightSail 1 mission, dozens of radio enthusiasts around the world wrote in to report that they heard the solar sailing CubeSat chattering away in low-Earth orbit.



Every few seconds, LightSail automatically transmits a beacon packet. These packets can be picked up by ground stations and decoded into <u>238 lines of text telemetry</u> that describe the spacecraft's health and status. Everything from battery current to solar sail deployment motor state is included. We still plan to better support the worldwide radio community's efforts to help us capture those packets; that work is temporarily on the back burner while the engineering team focuses on getting the spacecraft ready for delivery.

Many off-the-shelf CubeSat software packages also have an option to transmit Morse code beacons, and for the LightSail 2 mission, we're activating this feature. Every 45 seconds, the spacecraft will transmit "L-S-2," and radio operators tuned in to the spacecraft's 437.325 megahertz frequency should be able to hear it.

## AMSAT-UK International Space Colloquium 2016

The 2016 AMSAT-UK International Space Colloquium is taking place at the Holiday Inn, Guildford, GU2.7XZ, will be held over the weekend of July 29-31

Sessions will include updates on the many new satellites that are expected to be launched over the next few months. This includes Eshail-2 which will carry the first ever geostationary amateur radio transponder and provide more than 8 MHz of new intercontinental spectrum – it will provide coverage to four continents. Additionally we will have a session on how to develop software receivers using GNU radio, reviews of the **Tim Peake GB1SS** ARISS contacts and the STEM results achieved, information about a new 76 GHz satellite project, a review of how to operate "in the field" and lots more.

## Sixpedition to the Seychelles

A group calling their operation 'a Sixpedition' will be active as **S79V** from Villa Koket in the northeast Mahe Island (AF-024) between July  $1^{st}$  and  $10^{th}$ , 2016.



Operators mentioned are Paul, A65DR/G7SLP/KW4CM, Joel, A65BX/N8XJ/JG1MBQ, Martin, A65DC/SA6MIW, Gerald, A65CB/DU1AZ, Obaid, A61DJ and Keli, TF8KY.



Activity will be on 160-10 meters using CW, SSB, RTTY and PSK.

They state, "If our location allows we will make an effort in running 160m WSPR while not operating during nights."

Their equipment consists 2x Kenwood TS590 with ACOM 1010 amplifiers @ 400w. Antennas:

8 monoband antennas will be used, for 17-10m they will have 2 element VDAs, 20m 3 element VDA, 30m 2 element phased array, 40m 2 element phased array and 80m top loaded vertical.

QSL via IZ8CLM. They will also upload logs daily to ClubLog, LoTW, QRZ.com and eQSL.cc.

For-more-details-see: http://www.a6dx.com/index.html



The **Japan Amateur Radio League** (JARL) is having its 90th birthday and now is a good time to contact that country.

Centre-piece is the 'JARL 90th Anniversary Award', struck by this proud and active IARU member society which ends on December 31.

Among the qualifying special event stations that may count as nine points each, are more than 25 callsigns all with the 8J prefix.

For more information in the English language click on this link http://www.jarl.org/English/4\_Library/A-4-2\_Awards/Award\_Main.htm

Tnx: OPDX newsletter

# Ever heard of St.Brendan?

St.Brendan was an Irish monk who is believed to have sailed with others in just a coracle made of sheepskin - across the Atlantic - from the British Isles to Newfoundland in the year 510 A.D.



Based on this adventure, the Irish Radio Transmitters Society (IRTS) have promoted a 2-METER CHALLENGE by offering the BRENDAN AWARD.

This is a trophy which will be awarded to the first pair of amateur stations completing a successful trans-Atlantic two way CW or SSB QSO. There is a shield for the first digital mode contact. And there is a plaque for the first verified one way contact - meaning, of course, confirmed SWL report.

# Latest edition of The 5 MHz Newsletter

The latest edition of *The 5 MHz Newsletter* (No16 Winter-Spring 2016) is now available for free pdf download from <u>http://tinyurl.com/zh65rb9</u>

This edition features news on the latest 5 MHz allocations, a provisional bandplan from IARU Region 1 and a cartoon that might bring back a few memories !

The edition can also found on the <u>RSGB 5</u> <u>MHz webpage</u>, in the 'External Links' section of the <u>Wikipedia 60 meter band</u> <u>page</u> and on the US <u>'60 meters online'</u> website.

Cheers-*Paul-Gaskell.G4MWO* Editor,*The.5MHz.Newsletter* 





### IARUMS newsletter now available

The **IARU Monitoring System** newsletter reports Beijing's broadband OTH radars were transmitting on the 7, 10, 14 and 21 MHz amateur radio bands with 10 sweps/sec and 160 kHz wide

The Russian OTH radar Contayner located in Gorodezh caused interference to the 7 MHzband during the evenings and nights. The same radar disrupted 14 MHz in the afternoons. Parameters: 50 sps and 13 kHz wide

The International Amateur Radio Union Monitoring System (IARUMS) Region 1 April 2016 newsletter can be read at http://www.iarumsr1.org/iarums/news2016/news1604.pdf

Reports of Amateur Band intruders can be logged on the IARU Region 1 Monitoring System-Logger,at http://peditio.net/intruder/bluechat.cgi

Monitor the short wave bands on-line with a web based SDR receiver at http://www.websdr.org/

IARU Monitoring System (IARUMS) <u>http://www.iaru-</u> <u>r1.org/index.php?option=com\_content&view</u> <u>=category</u> <u>&layout=blog&id=39&Itemid=87</u>

## Yasme Foundation grants for young Hams

**Yasme Foundation** grants will make it possible for some young radio amateurs, who otherwise might be unable to do so, to attend the sixth **Youngsters on the Air** (YOTA) event this.July.in.Austria.

#### The-ARRL-reports:

The Yasme Foundation has announced three grants in furtherance of its goal of encouraging youth participation in Amateur Radio and in operating activities. The Yasme Foundation encourages amateurs to support activities that promote Amateur Radio and result in new licensees around the world.

A Yasme grant will enable two young radio amateurs from Kosovo to attend the YOTA conference — the first time these young people will travel outside their home country. Kosovo's national Amateur Radio association SHRAK was recently admitted to the IARU as a member society.

Two young operators from the Ethiopian Amateur Radio Society (EARS) also will attend the YOTA conference, thanks to a Yasme grant. Foundation This extends the foundation's past support of the ET3AA club station and a previous grant enabling travel by EARS members to participate in the 2016 ARI International DX Contest from Estonia. "EARS member participation furthers Amateur Radio activity from eastern Africa and encourages interest in Amateur Radio by other African youth," the announcement said. Three young US radio amateurs will also attend the YOTA meeting as invited members of IARU Region 2, with the assistance of a Yasme grant and a similar grant from the Northern California DX Foundation (NCDXF). The boards of both foundations expressed the hope that they will return with ideas for extending the successes of YOTA to young American North amateurs.

The Yasme Foundation is a not-for-profit corporation organized to support scientific and educational projects related to Amateur Radio. http://www.yasme.org/

Read the full ARRL story at http://www.arrl.org/news/view/yasmefoundation-announces-grants-to-promoteyouth-involvement-in-amateur-radio

# Ofcom propose using Ham Radio band for Wi-Fi

Office of Communications in the U.K. is consulting on plans to put Wi-Fi across Amateur and Amateur Satellite spectrum in the 5 GHz band

The Ofcom consultation document implies that amateur satellites in 5 GHz only operate in very Low Earth Orbits. This is false, radio amateurs have sent 5 GHz payloads into far higher orbits. Examples are the Venus orbiter Unitec-1 which operated on 5.840 MHz and AO-40 which is in a 58,836 km High Earth Orbit (HEO). The 5 GHz band will also be used by the Geosynchronous Phase-4B payload and the HEO Phase-3E satellite both of which are currently under construction. http://www.southgatearc.org/news/may2010/ unitec1 signal received.htm

Ofcom's proposal to use 5725-5850 MHz for Wi-Fi would adversely affect reception of the network of amateur weak-signal propagation



#### beacons,

http://www.microwavers.org/maps/6cms.htm

see

The-Ofcom-press-release-says:

As broadband delivered to the home gets faster, people increasingly expect their Wi-Fi to provide several services at once – such as video streaming, video calls, gaming and remote working. This demand puts pressure on the spectrum which carries Wi-Fi signals. Most Wi-Fi routers in the UK currently use a part of the spectrum called the 2.4 GHz band, but this is becoming increasingly congested and can impair broadband delivery of high data rate applications such as streaming video or-live-TV.

Many people now have newer broadband routers, which use not only the 2.4 GHz band, but also the 5 GHz band – which offers much more spectrum and can accommodate wide channels suitable for high data rate uses.

To make connections faster, Ofcom is proposing to open up an additional 'sub-band' within the 5 GHz frequency range for Wi-Fi – while ensuring protection for other users, such as.satellite.services.

The extra sub-band would increase the number of 80 MHz channels available for Wi-Fi from four to six, to accommodate data-hungry applications. These extra channels – which are already being used in the United States – could be opened up in around two to three years.

The consultation closes on July 22, 2016.

#### Ofcom-5GHz-consultation:

http://stakeholders.ofcom.org.uk/consultation s/5-GHz-Wi-Fi/

## Using Amateur Radio to enhance engineering education

Amateur radio was discussed at the IEEE MTT International Microwave Symposium (IMS) that took place between May 22-27, 2016 in San Francisco.

IMS is the premier annual international meeting for professional technologists involved in all aspects of microwave theory and practice.

On Tuesday, May 24, professors from universities in the United States and elsewhere discussed the specific ways amateur radio is being integrated into their engineering education. They will discuss how they are using amateur radio, why electronics/engineering education using amateur radio is effective, and the impact amateur radio-based instruction has had on their curriculae and success of their graduates.

#### Panel Organizers and Moderators:

Suresh Ojha W6KTM, National Instruments, Santa Clara, CA

David Witkowski W6DTW, Joint Venture Silicon Valley, San Jose, CA

Beric Dunn K6BEZ, Tarana Wireless, Santa Clara, CA

#### Panelists:

Dennis Derickson AC0P, California Polytechnic University

Bob Iannucci W6EI, Carnegie Mellon University

Xiaoguang Liu Al6DW, University of California, Davis

Sanjeeb Panday 9N1SP, Tribhuvan University

http://www.ims2016.org/

# Ham radio and solar lights for assembly elections

Whether this is appropriate or not is debatable. This is not an emergency, nor is it a public service or a non-profit sport or religious event. So, why amateur radio? /Ed

*New Delhi Television* NDTV reports up the upcoming West Bengal assembly election and the involvement of amateur radio.

Amped up with ham radio transmissions, solar lights and fleets of boats, launches and steamers, the world's largest mangroves, the Sundarbans, is gearing up to vote in the West Bengal assembly polls notwithstanding connectivity issues stemming from the archipelago's remoteness and wild terrain.

From ham radio operations to solar lights, officials are going the extra mile to ensure the



electorate gets a chance to exercise their voting rights, a chance for them to elect representatives who will help them realise basic needs such as strengthening embankments in the globally famous region ravaged with natural disasters.

For the first time, provision of ham (amateur) radio services have been made in 24 shadow zones in the district, including in Sandeshkhali, Haroa, Hingalganj segments of the Sundarbans, where there is no mobile connectivity, said Ambarish Nag Biswas VU2JFA, Secretary, West Bengal Radio Club.

Read-the-full-story-at http://www.ndtv.com/india-news/solar-powerboats-ham-radio-to-aid-voting-in-thesundarbans-1397131

The Editor welcomes discussion on whether such use of amateur radio services is justified?

#### MTØIXD Dxpedition video available

**Billy McFarland GMØOBX** has made available a video of the **DX-Interceptors MTØIXD** DXpedition to the Isle of Man, May 2016. The team operated from Scarlett Point, Isle of Man from what was originally a Coast Guard watch tower.

#### https://youtu.be/MUB7b6-YJX4

In this video **Ward Silver NOAX** (contributing editor to QST) speaks about the future of amateur radio and digital communication

Watch Ham Radio "Now What?" - Ward Silver -MicroHAMS Digital Conference 2016

https://youtu.be/nUTndhyh79U

#### VHF, UHF and Microwave newsletter

**IARU Region 1** has released edition 69 of the VHF, UHF and Microwave newsletter. It primarily deals with the IARU interim meeting held in Vienna from April 15-17.

Download the newsletter from:

http://www.iarur1.org/images/VHF/newsletters/Newsletter\_69 .pdf

The VHF-UHF Handbook is available at.

http://www.iaru-

r1.org/index.php/documents/funcstartdown/625/

## Break-In magazine available for download

The New Zealand national amateur radio society the NZART have made the PDF of their Jan/Feb 2016 *Break-In* magazine available for download

Download Break-In from http://www.nzart.org.nz/h-quarter/break-in/

## QST QST QST QST

New Zealand has just one class of amateur licence - 1 kW RF output. There are no practical tests to take just a single 60 question multiple choice paper. 40 questions must be answered correctly to achieve a pass. All the questions and answers are made available online to assist memorizing.



NZART Exam Generator and Question/Answer bank:

http://www.nzart.org.nz/exam/downloadexamination-files/

HamDisk Study Aid http://qsl.net/hamdisk/

## CEPT RECOMMENDATIONS FOR RADIO AMATEURS

The European Conference of Postal and Telecommunications/Administrations CEPT has produced a series of recommendations and deliverables very useful for radio amateurs worldwide, because a lot of non-CEPT countries also adopted them. Here it is a summary:

<u>T/R 61-01</u>: **CEPT Radio Amateur Licence**: entitles its holder to operate in a lot of countries that have adopted it, without obtaining an individual temporary licence.

<u>T/R 61-02</u>: **Harmonised Amateur Radio Examination Certificate** (HAREC): shows proof of successfully passing an amateur radio examination and facilitates the



issuing of an individual licence in a different country.

ECC/REC(05)06: CEPT Novice Radio Amateur Licence: similar to T/R 61-01, but for novice licences (medium level).

ECC/REC(14)05: Amateur Radio Licence Examinations for Persons with Disabilities: with the same syllabus of T/R 61-02, this claims for different facilities depending on the kind of disability.

There are also two documents, <u>ERC Report</u> <u>32</u> and <u>ECC Report 89</u>, describing the syllabus examinations for the novice and entry-class licences and a new website devoted to Radio Amateurs and CEPT task: <u>http://www.cept.org/ecc/topics/radioamateurs/</u>

## Phase-4A geostationary Amateur Radio transponder

# Es'hail 2 is a geostationary satellite which will carry two amateur radio transponders

The launch of the Es'Hail-2 satellite into a geostationary orbit is planned for the 1st quarter of 2017. The coverage area of the Narrowband (NB) and Wideband (WB) transponders should extend from Brazil to Thailand.

The two "Phase 4" amateur radio noninverting transponders will operate in the 2400 MHz and 10450 MHz bands. A 250 kHz bandwidth linear transponder is intended for conventional analogue operations and an 8 MHz bandwidth transponder for experimental digital modulation schemes and DVB amateur television.

Narrowband 2400.050 10489.550	-		transponder MHz Uplink 1Hz Downlink
Wideband 2401.500 10491.000	-		transponder MHz Uplink 1Hz Downlink
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