



# The IARU Region 3 Newsletter

## Issue 43 – Q2 2017, Released July 2017

### Editor's Note

Thank you to all those who have contributed to this edition of the Region 3 Newsletter. I would like to see more articles from Societies that may be of interest to other societies and regions.

Contributions may be sent to me at the email address at the end of the Newsletter. Items appearing in this newsletter may be used by societies to inform their members.

The deadline for the next edition is 30<sup>th</sup> September 2017.

73 Peter, VK3MV

### A word from the Chairman June 2017

In a short while the directors of IARU Region 3 will meet in Tokyo for the Director's meeting to review progress on tasks previously identified, and taking up new ones.

They will also have an opportunity of visiting the Tokyo Hamfair just before the director's meeting.

As mentioned in the last issue, the proliferation of small educational satellites made mainly by universities, and not having any amateur radio payloads, but using amateur frequencies, has been of concern. Just a few weeks ago, yet another such satellite was launched.

Efforts are now being made to approach the launching authorities, like ISRO in India, to make frequency coordination a pre-condition for accepting the satellite for launch.

IARU will also approach the respective administrations through its society to put a check on such misuse of amateur frequencies.

The Jakarta Hamfair promises to be a very big one and should have many visitors.

Work continues on the agenda items of interest to amateur at the forthcoming WRC 2019.

Two of our directors, Shizuo Endo and Wisnu Widjaja will be attending the APT Conference Preparatory Group (APG) meeting in Bali in a few weeks' time. An information paper will be presented on behalf of IARU.

We hope there will be good participation from all over for the IARU HF Championship contest coming up shortly.

I once again request all societies to provide information on activities in their respective areas for use in the newsletter.

Gopal VU2GMN

### IARU HF World Championship

This major contest starts at 1200 UTC Saturday and ends 1200 UTC Sunday, July 8-9.

The objective is to contact other radio amateurs, especially IARU member society HQ stations, on the 160m, 80m, 40m, 20m, 15m and 10m bands.

Multipliers are the total number of ITU zones plus IARU member society HQ stations worked on each band.

Important is the participation of IARU member societies as HQ stations. Last year there were 10 such station in Region 3.

IARU officials also represent a maximum of four multipliers per band (AC, R1, R2 and R3). Our two Region 3 Administrative Council members have the option of using 'AC' or the regional designator 'R3'. Region 3 Executive Committee members must use the designator 'R3'.

The full rules are at: [www.arrl.org/iaru-hf-championship](http://www.arrl.org/iaru-hf-championship)

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### ILLW gears up for its milestone

The International Lighthouse and Lightship Weekend 20<sup>th</sup> year on August 19-20 with more than 250 registrations coming from 33 countries so far.

Germany is in the lead on 48, next Australia 35, the USA 35, then comes England, The Netherlands, Scotland, South Africa and Sweden.

In IARU Region 3 registrations come from Australia, New Zealand, Malaysia and Taiwan. In previous years there had been China, Hong Kong, India, Japan, New Caledonia, Philippines, Sri Lanka, and Thailand.

For more details visit the website [www.illw.net](http://www.illw.net)

### IARU Emergency Telecommunications Guide – Translations

The IARU emergency telecommunications guide was developed to provide materials suitable for training Radio Amateurs to participate in emergency events and guidance to the individual amateur radio operator who wants to improve their ability to participate in such events or to simply have a better understanding of the process

Originally produced in English, Radio Amateurs around the world have worked hard to translate the 94 page document into their local languages. So far translations are available in the following languages:

Portuguese by Luiz Fernando Pesce PU2LXN  
Spanish by EA1CI EA2BB EA3HUL EB3DGZ EA4GQB and EA8AWK.  
and Romanian in HTTP and PDF formats by Francisc Grünberg, YO4PX

It is hoped that these translations will improve the knowledge of Radio Amateurs in Emergency Communications and hopefully this process will be repeated for other languages.

Our thanks to all the translators for their hard work in making this

information more accessible to everyone.

English Emergency Telecommunication Guide

<http://www.iaru.org/emergency-telecommunications-guide.html>

Foreign language versions available via

<http://www.iaru-r1.org/index.php/emergency-communications/1664-iaru-emergency-telecommunications-guide-translations>

### **IARU Aligns Satellite Coordination Guidelines with ITU WRC-15 Decisions**

As the global federation of national associations of radio amateurs in more than 150 countries, the International Amateur Radio Union (IARU) for many years has provided frequency coordination services for amateur satellites free of charge. Often these satellites are constructed by students at universities and other institutions as a part of their educational experience. In general, they have been licensed to operate in the amateur-satellite service, which is defined by the Radio Regulations of the International Telecommunication Union (ITU) as having the "...purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest."

Some administrations have issued experimental licenses for such satellites operating in amateur-satellite frequency bands. The IARU has coordinated these satellites as well, to reduce the possibility of harmful interference that might result from uncoordinated operation. Since 1 July 2014 it has not been possible to coordinate experimental satellites in the 144-146 MHz band because of the high probability of harmful interference in this heavily used band.

Educational satellite projects have grown in popularity as launch opportunities have increased. In 2012 the ITU World Radiocommunication Conference took note of the proliferation of what in Resolution 757 (WRC-12) it called "nanosatellites and picosatellites" and invited WRC-18 (now scheduled for 2019) to consider steps to facilitate their deployment and operation. Two Reports, ITU-R SA.2312 (09/2014) and ITU-R SA.2348 (05/2015), are instructive regarding the characteristics, definitions, spectrum requirements, and notification procedures of and for such satellites, which generally must use spectrum below 1 GHz for operational reasons.

At the following WRC in 2015, in place of Resolution 757 the Member States of the ITU adopted Resolution 659 (WRC-15) in which it was noted that the use of 144-146 MHz and 435-438 MHz by non-amateur satellites is not in accordance with the definition of the amateur-satellite service in the Radio Regulations. Resolution 659 cites the two reports mentioned above and makes it clear that the spectrum needs of what are now called "non-geostationary satellites with short duration missions" should be met either within the service in which the space station is operating or within the space operation service. Further, if new or upgraded allocations to the space operation service are required, studies should be limited to the frequency ranges 150.05-174 MHz and 400.15-420 MHz.

Accordingly, effective 1 August 2017 the IARU will be following revised guidelines for satellite frequency coordination.

The strong preference is for all satellites using spectrum allocated to the amateur and amateur-satellite services to operate under amateur licenses and within the definition of the amateur-satellite service and the service-specific Article 25 of the Radio Regulations. The IARU believes the definition is sufficiently broad to encompass nearly all educational satellite projects that include giving students hands-on experience with radiocommunication and are conducted under an amateur license.

The IARU will only coordinate a non-amateur satellite if an administration directs in writing that it be operated in an amateur-satellite band under an experimental or other non-amateur license.

Satellites with combined amateur and non-amateur missions will continue to be coordinated.

*IARU News*

### **The Jakarta Amateur Radio Fair 2017**

Dear Amateur Radio friends around the world,  
The **Jakarta Amateur Radio Fair (JARF) 2017** is organized by Organisasi Amatir Radio Indonesia (ORARI) Daerah DKI Jakarta every year.

This event attracts largest gathering of amateur radio enthusiasts from all over Indonesia and ASEAN countries, this year the JARF 2017 scheduled to be held during Saturday, July 15th - Sunday, July 16th, 2017 at Ancol Beach City, Taman Impian Jaya Ancol, North Jakarta, Indonesia. [Click here for a map](#)

This is a great chance to meet some of the innovators who continue to push the technological envelope and improve amateur radio service, and to learn from the people who are finding interesting ways to use amateur radio, and also to find the latest radio amateur equipments.  
The activities at the JARF 2017:

- Radio Amateur Games: Mobile and Walking ARDF, Morse Code Receive Contest, Logging Contest, Set-Up Emergency, Ham Quiz, Eyeball QSO, QSL Card Challenge.
- Workshops, Presentations and meetings on all two days.
- Amateur Radio Fun with young generation.
- JARF 2017 Special Event Amateur Radio Station.
- Mobile Fun Drive, Photo Contest, Radio Amateur Exhibitions, Food Bazaar.
- Entertainment, Lucky Draw and Prizes.

There is an Icom IC-7300 for grand prize, 3 units of 10 meter band Transceiver, 50 units of dual band Hand Held Transceiver and much more for lucky draws.

We hope that you will be able to join us in the JARF 2017!

For more information please visit our website [www.jarf2017.com](http://www.jarf2017.com) or e-mail to [panitia@jarf2017.com](mailto:panitia@jarf2017.com)

*ORARI*

### **“New” Belize Amateur Radio Club Admitted to IARU Membership**

The member-societies of the International Amateur Radio Union (IARU) have approved a proposal to admit a new representative of the radio amateurs of Belize to IARU membership. As of the deadline for voting, 9 May 2017, 77 member-societies had voted in favor of admitting the Belize Amateur Radio Club (BARC) with none opposed. There were no abstentions. The affirmative votes of 55 member-societies were required for approval.

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 Bylaws. The officers of BARC are:

Emil Rodriguez, V31ER, President  
Dr. Andre T. Scholz, V31DL, Vice President and IARU Liaison  
Steven Harp, V31SH, Secretary

Contact information:

Web: <http://barc.bz>

Address: PO Box 159, Belmopan, Belize, Central America

Telephone: +501 601 6282

Email: see listing at [www.iaru.org/member-societies.html](http://www.iaru.org/member-societies.html)

There are now 167 IARU member-societies in as many countries and separate territories.

### Disaster communications in Sri Lanka flood

Torrential monsoonal rain in south-western Sri Lanka last Sunday sparked a flood and landslide disaster with an urgent call for help received by the Radio Society of Sri Lanka (RSSL).

Around 11:30 am RSSL President, **Jaliya Lokeshwara 4S7JL** got an emergency call about 11.30 am from the Road Development Authority seeking help from radio amateurs.

The RSSL reports that emergency communications were needed to link remote Kalawana, one of the worst hit areas and Ratnapura. All communications had failed due to heavy flooding, earth-slips, and broken communications networks

The RDA declared roads were impassable. Only air rescue by the Sri Lanka Air Force helicopters was possible and without communications that was even more difficult.

A plan was quickly put in place with four radio amateurs ready to be airlifted from Colombo to both locations to form a communications link. Jaliya 4S7JL and Nadika 4S6NCH were the first ready to go, and were joined by Victor 4S7VK and Dimuthu 4S7DZ. Victor 4A7VK said: "We knew we could do it, we were self-sufficient and willing to rough it out."

"It was a hard task, but within 30 minutes of landing the High Frequency link was established. It had two days of tremendous coordinating rescue flights, movement of patients from Kalawana hospital to Ratnapura, and food drops."

The emergency link remained until the restoration of mobile phone connections and roads were cleared. Victor 4S7VK in his report concluded: "We are happy we could win the day for simple high frequency radio."

The disaster aftermath continues with the deaths of 177 people and thousands of displaced survivors.

*Jim Linton, Chairman IARU Region 3 Disaster Communications Committee*

### QB50 ISS CubeSat Deployments May 23-25

The second phase of **QB50** CubeSats were deployed from the International Space Station over three days from May 23-25, 2017

Built by university students and research organisations from 23 countries around the world, the QB50 constellation aims to study the lower thermosphere 200-380 km above the Earth.

11 QB50 CubeSats were deployed in the first phase and a further 17 will be deployed in the second phase. The beacons should be activated about 30 minutes after deployment.

Download the QB50 ISS CubeSat Deployment and Radio Information v2 PDF

[https://ukamsat.files.wordpress.com/2017/05/qb50\\_iss\\_ra\\_v2.pdf](https://ukamsat.files.wordpress.com/2017/05/qb50_iss_ra_v2.pdf)

The QB50 CubeSats have downlinks between 435.7 and 438 MHz and reports from radio amateurs are most welcome. Beacon data received can be uploaded to a dedicated QB50 webpage at

<https://upload.qb50.eu/>

LilacSat-2 (ON02CN), which deploys at 0815 GMT on Tuesday, May

23, is carrying a FM to Codec2-BPSK Digital Voice transponder, an APRS digipeater and camera. Further information at <https://amsat-uk.org/2017/05/19/lilacsat-1-cubesat-iss/>

Two of the ISS QB50 CubeSats deployed in the first phase, ON01FR 437.020 MHz and ON05FR 436.880 MHz, carry V/U FM transponders. The uplink frequency for both is 145.860 MHz with 210.7 Hz CTCSS, see <http://site.amsat-f.org/2017/05/12/qb50-document-de-description-des-telemesures-des-satellites-on01fr-on05fr/>

List of QB50 CubeSats with Beacon format and frequency information <https://upload.qb50.eu/listCubeSat/>

AMSAT-UK <http://amsat-uk.org/>

### CAS-4A and CAS-4B satellites from CAMSAT launched

Two of CAMSAT's amateur radio payloads piggybacked on the optical remote sensing micro-satellites OVS-1A and OVS-1B were launched at 0300 GMT on June 15, 2017 from the Jiuquan Satellite Launch Center, on the CZ-4B launch vehicle

The primary payload of this launch is a hard X-ray modulation telescope satellite (HXMT).

Satellite CAS-4A/OVS-1A:

- Architecture: Micro-satellite
- Dimensions: 494Lx499Wx630H mm
- Mass: 55 kg
- Stabilization: three-axis stabilization system with its +Y surface facing the earth
- Primary Payload: optical Camera with 1.98m resolution

CAS-4A Orbit:

- Orbit type : Sun synchronization orbit
- Apogee: 524 km
- Inclination: 43°
- Period: 95.1 minutes

CAS-4A Amateur Radio Payload:

- Call sign: BJ1SK
- VHF Antenna: one 1/4λ monopole antenna with max. 0 dBi gain located at +Z side
- UHF Antenna: one 1/4λ monopole antenna with max. 0 dBi gain located at -Z side
- CW Telemetry Beacon: 145.855 MHz 17 dBm
- AX.25 4.8k Baud GMSK Telemetry: 145.835 MHz 20 dBm
- U/V Linear Transponder Downlink: 145.870 MHz 20 dBm, 20 kHz bandwidth, Inverted
- U/V Linear Transponder Uplink: 435.220 MHz

Satellite Name: CAS-4B/OVS-1B

- Architecture: Micro-satellite
- Dimensions: 494Lx499Wx630H mm
- Mass: 55 kg
- Stabilization: three-axis stabilization system with its +Y surface facing the earth
- Primary Payload: optical Camera with 1.98m resolution

CAS-4B Orbit:

- Orbit type : Sun synchronization orbit
- Apogee: 524 km
- Inclination: 43°
- Period: 95.1 minutes

CAS-4B Amateur Radio Payload:

- Call sign: BJ1SL
- VHF Antenna: one 1/4λ monopole antenna with max. 0 dBi gain located at +Z side
- UHF Antenna: one 1/4λ monopole antenna with max. 0 dBi gain

located at -Z side

- CW Telemetry Beacon: 145.910 MHz 17 dBm
- AX.25 4.8k Baud GMSK Telemetry: 145.890 MHz 20 dBm
- U/V Linear Transponder Downlink: 145.925 MHz 20 dBm, 20 kHz bandwidth, Inverted
- U/V Linear Transponder Uplink: 435.280 MHz

*Alan Kung, BAIDU*

CAMSAT Press Release

<https://ukamsat.files.wordpress.com/2017/03/camsat-cas-4a-and-cas-4b-news-release.pdf>

AMSAT-UK

<http://amsat-uk.org/>

### **IARU Region 3 Directory**

Official R3 Directory. Further information can be found on the Region 3 website: <http://iaru-r3.org/secretariat/>

### **Society Update Officials and Contact Information**

A request is extended to all Region 3 Society Liaison Officers or other responsible officers to ensure that all details about their society is up to date on the listings shown at <http://iaru-r3.org/> under member societies. Some details have not been amended or updated for a number of years and have non functional data.

Current details can be forwarded to the Secretary of Region 3 for updating of the web information.

#### **Newsletter details:**

The Region 3 Web Site: Go to: <http://www.iaru-r3.org>.

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Region 3 Societies can submit articles for inclusion to the next bulletin by 30th September 2017.

**Publisher:** The International Amateur Radio Union Region 3

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**Note to Editors -** *Items from this Newsletter may be freely copied for publication by Member Societies of IARU.*

### ***IARU Region 3***

