



The IARU Region 3 Newsletter

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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. If a member society has an upcoming event please consider making a news item – the editor will assist you.

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

The deadline for the next edition is 30th June 2019.

73 Peter, VK3MV

A word from Chairman

At the 16th IARU Region 3 Conference, the Directors are requested to consider how the format of the Region 3 Band Plan can be changed in future to be similar to that of Regions 1 and 2.

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

The Region 3 Band Plan was published on 12 March 2019.

The Band Plan Committee will continue working on the plan making changes and releasing interim release when necessary and the latest copy will have to be presented to the 18th conference for formal adoption.

The new Region 3 Band Plan can be found on document number R3-004 in <http://iaru-r3.org/standard-documents>

73 Wisnu

Minutes of the 17th IARU Region 3 Conference

The DRAFT Minutes of the 17th IARU Region 3 Conference are now available.

Also attached is a tentative list of recommendations and Annex 1 (Proposed revisions and corrections to the IARU-R3 Band Plan) adopted at the Conference.

Please note that the attached are Draft Minutes until they are approved at the 18th Conference.

Draft Minutes IARU R3 Conf
[Draft Minutes 17RC_Final.docx](#)

Annex 1
[Annex 1 to 17R3C Minutes.docx](#)

Tentative list of Recommendations
[Tentative List of Recommendations_17R3C_Ver.0.doc](#)

Secretary, IARU Region 3
secretary@iaru-r3.org

2019 IARU HF World Championship Contest

The 2019 International Amateur Radio Union (IARU) High Frequency (HF) World Championship Contest takes place the second full weekend of July, beginning 1200 UTC Saturday and ending 1200 UTC Sunday (13-14 July 2019). Both Single and Multi operator stations may operate the entire 24-hour period.

All licensed amateurs worldwide are eligible to participate in this contest. The objective of this contest is to contact as many other amateurs as possible, especially IARU member society HQ stations, around the world using the 160, 80, 40, 20, 15 and 10 meter bands. Multipliers are the total number of ITU zones plus IARU member society HQ stations worked on each band (not mode). Thus, your Society's HQ stations participation is very important for the multipliers.

IARU officials represent a maximum of four multipliers per band (AC, R1, R2 and R3). Our two regional AC members have the option of using "AC" or our regional designator "R3". Regional EC members who are not AC members must use our designator "R3".

You can find the complete rules at; <http://www.arrl.org/iaru-hf-championship>. For full details take a look at the attached document.

Enjoy and good luck!

Secretary, IARU Region 3
secretary@iaru-r3.org

12th IARU Region 3 ARDF Championships

The 12th IARU Region 3 Amateur Radio Direction Finding (ARDF) Championships, preliminary information.

The International Amateur Radio Union (IARU) Region 3 ARDF Championships is to held in China this autumn. The Chinese Radio Amateurs Club (CRAC) is currently working hard with local government for the final approval.

The basic information of the event from draft of the Bulletin No.1 with acceptance of CRAC.

Venue:

Accommodation: Wuxi city, Jiangsu Province (about 150km west of Shanghai)

Competition Area: within 100km from centre of Wuxi city

Schedule:

21st Sept. (Sat.) Arrival and registration

22nd Sept. (Sun.) Opening ceremony, Training (classics, foxhunting, sprint)

23rd Sept. (Mon.) Foxhunting

24th Sept. (Tue.) Classic 3.5MHz/145MHz; Award ceremony

25th Sept. (Wed.) a.m. Sprint / p.m. An excursion

26th Sept. (Thu.) Classic 3.5MHz/145MHz; Award ceremony and good-bye party

27th Sept. (Fri.) Dissolution

Application:

Deadline of Letter of Intent : 1st May 2019

Deadline of application with standard price: 31st July 2019

Categories:

W15, W19, W21, W35, W50, W60,

M15, M19, M21, M40, M50, M60, M70

(Additional team acceptable)

More information will be released from CRAC later.

Thank you for your patience. Best regards,

VR2IZ NE6Z (ex KG6CEH)

Chairman of IARU Reg.3 ARDF Committee

Yoh Hiroshi Izuta Tokyo JAPAN

70th ANNIVERSARY OF THE SPANISH RADIO AMATEUR LEAGUE

This year 2019 marks the 70th anniversary of the "Unión de Radioaficionados Españoles", in order to commemorate this important event, the URE, the Spanish IARU member society, announces the following Special Prize to all licensed radio amateurs and SWL from all over the world.

Contacts can be made using any mode or band from 160 meters to 6 meters with the 14 different AM70 special stations. The suffixes of the 14 special stations are each one of the letters of the "UNIÓN DE RADIOAFICIONADOS ESPAÑOLES", except the one with the letter "Ñ" which will be replaced by the URE headquarters special station AM70URE.

And so, the 14 special station callsigns are:

AM70URE (Unión de Radioaficionados Españoles)

AM70A, AM70C, AM70D, AM70E, AM70F, AM70I, AM70L, AM70N, AM70O, AM70P, AM70R, AM70S y AM70U

DATES:

From 1st April 2019 at 0000z to 9th June 2019 (2359z)

Unión de Radioaficionados Españoles

ACMA names successful tender for Amateur Examinations and other Functions

On Friday 1st February 2019, the ACMA released media statement, with an update on the Approach to Market (ATM) "tender" for the ACMA related functions for the Amateur Service in Australia.

The successful tenderer is the University of Tasmania through the Australian Maritime College.

The WIA congratulates the Australian Maritime College.

The announcement from the ACMA indicates that services will not be delivered in full until sometime after 25 February 2019 - the ACMA will be undertaking some of these functions until the AMC is ready.

Amateur callsign recommendations will no longer be processed by the WIA. All Callsign queries should now be directed to the ACMA. The normal provisions for visiting amateurs to Australia remain unaltered.

WIA

Indonesia Gains More Amateur Bands

The Indonesian national society, ORARI, reports new amateur radio regulations have been issued with top class licensees gaining new WRC-15 Secondary allocations at 136kHz, 472kHz and 5MHz.

The amateur service is now authorized to use the 135.7 - 137.8 kHz, 472- 479 kHz, and 5 315.5 - 5 366.5 kHz with the release of the new Indonesian Radio Amateur Regulation and Table of Frequency Allocations by Ministry of Communication and Information Technology of Republic of Indonesia in December 31st 2018.

While approved at WRC 12 and WRC 15 by the ITU, each country then must implement regulations for its amateurs before the band is available.

Operations on 60 meter band are subject to the international foot notes, which limit power to 15 watts EIRP and it can be used for Amateur Extra Class (YB/YE) licensees only.

On 2200 and 630 meter bands, both Amateur Extra Class (YB/YE) and Advanced Class (YC/YF) licensees are valid to use this bands.

All allocations are on a secondary basis.

ORARI

Australian CubeSat to use 76 GHz

The IARU Satellite Coordination Panel has announced the amateur radio frequencies for the Australian 76 GHz CubeSat **CUAVA-1** that is expected to launch in July 2019

CUAVA-1 is a 3U CubeSat and the first CubeSat project of the new ARC Training Centre for CubeSats, Uncrewed Aerial Vehicles (UAVs), and their Applications (CUAVA), whose primary aim is the education and training of people, mostly PhD students, for the space sector.

With significant heritage from the QB50 CubeSat INSPiRE-2, CUAVA-1 is a 3U CubeSat that will link with the international radio amateur community for outreach, training, and increased data downloads, observe the Earth with a novel multi-spectral imager, use a GPS instrument to explore radio occultation and the reception of GPS signals scattered off the Earth as well as provide a backup determination of the CubeSat location, investigate plasma environment and associated space weather with radiation detectors, and explore the performance of a new communications payload.

This mission addresses issues of radio technique interesting to the radio amateur community in the following ways:

1) Global Radio Amateur Participation in Mission and Data

Downlinking We will work with radio amateurs and other groups to receive and decode the spacecraft beacon and downlinked data, with subsequent transfer to the internet database (ideally the SatNOGS database).

In detail, the CubeSat will transmit data, especially recent images over the terrestrial footprint, to participating radio amateurs across the globe. This will directly involve radio amateurs in the mission and its success, by greatly increasing the overall amount of downlinked data available and having the images be directly relevant to the receiving people. The receiving station and people would be identified in the database and then acknowledged in any publications resulting. The mission's success will thus be directly tied to the involvement of the international radio amateur community.

In addition, the mission should provide multiple opportunities for enhanced outreach and training for both the global amateur radio satellite communities and CUAVA.

2) Student and Radio Amateur Participation in the Ground station

We will train students and desiring radio amateurs in the setup and use of a ground station hosted by the University of Sydney and then have these people operate the groundstation (including control of the satellite and managing the uplink and downlink) and transfer downlinked data into an internet database (ideally the SatNOGS database).

This will involve existing radio clubs in the training, increasing their memberships and leading to new clubs and people familiar with the international radio amateur and satellite communities.

3) Radio Wave Propagation

The ionosphere, thermosphere, and lower atmosphere have multiple effects on the propagation and absorption of radio waves and microwaves.

This mission will study the electron number density as a function of position, time of day, and space weather events using the "radio occultation" of GPS signals and their associated refraction and attenuation. These data will be published and made available for ionospheric research via a website, and provided to Australia's Bureau of Meteorology and other space weather organisations worldwide. These data are used to predict maximum and minimum usable frequencies for radio amateurs (and both commercial and government users).

In addition, the GPS signal attenuation and electron number density profiles can be used to extract the amount of water as a function of height and used to predict ordinary weather. This work will also add to knowledge of the orbital environment via the drag forces and decay of satellites depending on the gas and plasma densities.

4) Communication Protocols

Modulation techniques that will be investigated for the high-speed communications experiment include QPSK, 16-QAM and CPFM. If successful, this technology for wavelengths below 10 cm will increase the data transfer rates by at least 4 orders of magnitude while also decreasing the sizes of antennas and the associated spacecraft.

This experiment will be relevant to spacecraft-to-ground and inter-spacecraft communication links and is particularly relevant to radio amateurs, universities, and their students and staff, due to the dramatic increases in data rates and capabilities and associated dramatic reductions in costs.

In addition, the use of multiple frequencies is important for rain (and moisture content) attenuation mitigation techniques, as well as to provide another data stream for weather prediction.

5) Radiation Effects on Electronic Components

The Low Earth Orbit (LEO) environment is protected from cosmic rays, solar particles, and particles trapped in the Van Allen Belts by Earth's magnetic field.

Some portions of LEO do harbour regions of enhanced radiation, in the auroral zones and the South Atlantic Anomaly (SAA) for example. In addition, transient solar and magnetospheric particle energization events, a major component of space weather, can change the radiation level by orders of magnitude. This radiation can adversely affect spacecraft which pass through them.

This mission will directly measure the counts of energetic particles as a function of space weather activity, position, and time of day, thereby characterising the Earth's radiation environment. It will also study the effects of the radiation on the computer and other onboard electronics. Examples of effects include single event upsets (SEUs), degraded solar cells, and non-functioning electronics such as radio receivers and transmitters.

6) Attitude and Position Determination

Reception and analysis of GPS signals by the onboard GPS receiver will determine the spacecraft's attitude and location as a function of time, thereby determining the satellite's orbit.

Comparisons with NORAD radar-derived orbits will test the on-board GPS receiver and measure drag and other effects. These orbits are vital for radio amateurs interested in testing and characterising their radio equipment, as well as in downloading the satellite beacon and data signals for transmission via the web to the satellite project and the international community.

Proposing to downlink telemetry on 9k6 GMSK AX25 on UHF and high speed downlinks on 2.4 GHz, 5.6 GHz and 76 GHz. Planning a launch from Japan in July 2019 into a 400km orbit.

These frequencies have been coordinated by the IARU:
Downlinks: 437.075 MHz, 2404.000 MHz, 5840 MHz and 76.800 GHz
Uplinks: 145.875 MHz, 2404.000 MHz and 5660.000 MHz

More information on CUAVA-1 can be found at
<https://www.cuava.com.au/>
https://twitter.com/Arc_Cuava

IARU Satellite Frequency Coordination Panel
<http://www.amsat.org.uk/iaru/>

New Microwave & Optical Records Set

John Martin VK3KM - WIA Records Keeper lets us know that there have been many new microwave records and a new optical record set in VK.

The records list has been updated to include a number of new records set by Iain Crawford VK5ZD, Tim Dixon VK5ZT and David Minchin VK5KK.

New VK1 record for 24 GHz: VK5ZD/1 VK5KK/2 18/03/19 84.2 km
New VK1 and VK2 records for 47 GHz: VK5ZD/1 VK5KK/2 8/03/19 84.2 km

New VK1 and VK2 records for 76 GHz: VK5ZD/1 VK5KK/2
18/03/19 84.2 km
Further VK2 record for 76 GHz: VK5ZD/2 VK5KK/2 21/03/19 95.7
km

New VK3 and national record for 76 GHz: VK5ZD/3 VK5KK/3
17/03/19 141.1 km

New VK3 record for 122 GHz: VK5ZD/3 VK5KK/3 18/03/19 5.0 km
National Mobile records for 24 GHz, 47 GHz and 76 GHz: K5ZD/M5
VK5KK/M2 25/03/19 28.5 km

New VK1 record for optical comms: VK5ZD/1 VK5ZT/2 18/03/19
84.2 km

There is also a new national Digital Modes record for the 122 GHz
band, set by Andrew Anderson VK3CV and Noel Higgins
VK3NH: VK3CV VK3NH 22/03/19 1.6 km

The full lists of past and current VHF-UHF records are available on
the Records Update web page:

[Link](#)

John Martin VK3KM / WIA

IARU Region 3 Contacts

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

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 nonfunctional data.

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

Newsletter details:

Go to the IARU Region 3 Web Site <http://iaru-r3.org/topics/newsletter>

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Region 3 Societies can submit articles for inclusion to the next bulletin
by **30th June 2019**.

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the Secretariat.*

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IARU Region 3

