



COMMITTEE C5 – Minutes of Interim Meeting 20th & 21st April 2013 in Vienna

Chairman: Michael Kastelic OE1MCU

Minutes Secretary: Georg Lechner, OE1GLW

Opening by the Chairman

Saturday 20th April 2013: 0904 Opening speech by OE3MZC, welcome, and reminder that the Amateur Radio Service is an experimental service, and this should be considered in any of the decisions.

Administrative details by OE1MCU.

Preparing the meeting

Introduction of delegates, 28 were present at the commencement of the meeting, including the Chairman and Secretary, representing 18 member societies and IARU.

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| Coen | PA5KM | VERON |
| Abraham | PB0AOK | VERON |
| Jussi | OH5LK | SRAL |
| Ivan | OZ7IS | EDR |
| Roman | OM3EI | SARA |
| Graham | G3VZV | (IARU-R1 Satellite Coordinator) |
| Murray | G6JYB | RSGB |
| Jacques | ON4AVJ | UBA |
| Peter | OE5MPL | OeVSV |
| Wolfgang | OE3WOG | OeVSV |
| Kurt | OE1KBC | (Observer OeVSV) |
| Roland | OE1RSA | (Observer OeVSV) |
| Thomas | OE1TKT | (Observer OeVSV) |
| Thomas | OE7OST | (Observer OeVSV) |
| Alessandro | IV3KKW | ARI |
| Jochen | DL1YBL | DARC |
| Christian | DL3MBG | DARC |
| Jörg | DJ3HW | DARC |
| Kjetil | LA8KV | NRRL |
| Robert | S53WW | ZRS |
| Joe | HA0LC | MRASZ |
| Philippe | F6ETI | REF |
| Betty | F6IOC | REF |
| Petr | OK1FCJ | CRC |
| Zeljko | 9A2R | HRS |
| Hans | PB2T | IARU-R1 President |

Proxies: SSA Proxy for NRRL
SARL Proxy for RSGB
NARS Proxy for DARC

Updates:

- Germany withdraws **VIE13_C5_06**. (HF Links for Digital Comms & Voice)
- Apologies from RSGB that John Regnault G4SWX (new VHF Manager) was unable to attend

SUN CITY 2011 and action points

- The APRS section in the handbook has not yet rewritten. LA8KV will ask LA6IM to rewrite this section.
- Unresolved action points from Sun City would be killed at the next conference, if necessary.

Report from the Chairman

Chairman's report: This is available in written form as **VIE13_C5_01**.

Spectrum Matters: There had been problems in Ukraine and Sweden. Please contact Murray, G6JYB in all spectrum matters and inform him about what is going on in your country.

Contests: Martin Henz DL5NAH, will take over the development of the IARU contest evaluation robot and improve it. All logs will be kept. Martin will be appointed to be 'contest evaluation coordinator'. A discussion occurred regarding how to handle the submission of logs. All logs should go to the IARU Server (iaru.oevsv.at). Contest managers would be free to initially collect logs and then upload to the robot. In countries without contest managers, radio amateurs would be requested to send logs directly to the server. The Contest managers /organisers will have special access to the robot. It was important to prevent the splitting of digital log collecting systems into different user groups. (See also **VIE13_C5_07**)

Chairmanship: OE1MCU will retire from his post in 2014, please find a successor.

Report from the coordinators

Satellite Coordinator Report, VIE13_C5_24: Graham, G3VZV presented his report. Young people are getting involved (Cubesats). Frequency coordination used though occasional problems. Launch schedule very busy. Digital ATV is ready to be placed on ISS. Amateur projects of universities are welcome but must not include financial gains.

DX Records Report, VIE13_C5_30: Tommy SM6NZB is stepping down. A successor is needed. The records database must be available to everybody. A discussion took place regarding the duties of the DX record keeper (is the QSO possible; formula for calculation of distance?). ZRS offered to handle this. Data backup needed. To be evaluated next year.

(Post Meeting Note: Offer from EDR also received)

Frequency allocations/international bodies

Document VIE13_C5_29 WRC-15 Agenda Items

Hans PB2T Presented the paper which lists relevant agenda items. The formal IARU document on amateur views has been drafted but not yet been issued. This new document has several changes as various bands are affected. Mostly secondary allocations are affected in the bands above 1GHz. Protection of DX windows is required. It is important that all Societies keep a close track of what their country is doing – bands might be lost to mobile services.

OE1MCU: To lobby the authorities in your country is one of the currently important themes, so that your administration will have reason to recognise and support the Amateur Radio Service. Please keep Murray updated. He can also support you with information as to why we need the allocated spectrum. International lobbying required. In addition to regulators and CEPT we also need the support of EU decision makers. Murray commented this requires additional volunteers.

Document VIE13_C5_32 2400MHz Amateur Satellites

As the 2.3GHz band is of particular concern (see EDR Paper VIE13_C5_27), this information paper was created to provide data on Spacecraft using amateur frequencies at 2.4 GHz. This should help future planning. It was noted that as new satellites are planned and launched, the information will need to be updated from time to time.

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| ACTION Point G3VZV: Graham will send updated version for the next newsletter |
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Operational matters

Document VIE13_C5_20 Expeditions operations

Jussi OH5LK presented the paper and highlighted that too many expeditions work only one mode. We should encourage operators to use OTHER bands and modes, too.

Going on expeditions often require a lot of equipment and effort. Expeditions often give people a chance to work new squares or DXCC-countries. VHF expeditions are encouraged to operate on different propagation modes, operating modes and even bands, if applicable. For example an EME expedition on the 145 MHz band could operate without too much extra effort on meteor scatter, via satellite, or even on the 50 MHz band, whenever the Moon is below the horizon. Meteor scatter expeditions could, for example, operate Tropo, Aurora, whenever conditions on meteor scatter are not good. On the . 50/70 MHz bands, meteor scatter expeditions should take advantage of sporadic-e openings, because they usually permit a lot of contacts in a short time. It is important to show that the Amateur Radio Service is an experimental one that is also versatile.

Create Article for IARU R1 webpage:

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| Vote.: Unanimously accepted. |
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Document VIE13_C5_22, *procedures for meteor scatter operation shall be reviewed.*

Jussi OH5LK presented a short paper on his concerns regarding procedures and Internet chat rooms.

Chair: Handbook should be to be reviewed in this respect, and needed to include examples of what is valid or not. A sub working group was formed. The result on Sunday was that Handbook Sec 7.4.9 be updated as per below:-

VALID CONTACTS

A valid contact is one where both operators have copied both callsigns, the report and an unambiguous confirmation. However no recourse should be made during the contact to obtain the required information, change of frequency, antenna direction, etc. via other methods such as the Internet, DX Cluster, talk-back on another band, telephone etc. Such secondary methods invalidate the meteor scatter contact.

In essence: if anything concerning the ongoing QSO attempt is agreed through other means than the QSO attempt frequency a new start is required.

Additional information for communication before and during the MS QSO:

Acceptable Examples:-

“shall we make a sked on 144.388 starting at 1310z, I will start”)

- “I have QRM, lets move 5 kHz up and start again”
- “lets continue for another 15 minutes and start again”
- “thank you for a nice QSO after the QSO has completed on the radio”

Unacceptable Examples:-

- “I only need the final rogers”
- “470/9”
- “I received a burst from you”
- “I received a burst from you but I can not decode it”

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| Vote: Unanimous in favour |
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Document VIE13_C5_33, Beacons – MGM Alignment

Murray presented the paper. Problems had arisen since Sun City regarding how to align MGM tones on Beacons – especially in VHF allocations where the frequency spacing is only 1kHz. A new standard is needed that ordinary amateurs find simple. Murray presented slides of how different offsets and MGM (such as JT4, JT64 Pi-4 etc) had been considered before settling on the 1kHz offset compromise in the proposal. Ivan OZ7IS agreed that such an update was needed. It was agreed that the recommendations and just the main graphic would be entered into the handbook. Murray highlighted the www.Beaconspot.eu website for Beacon reports and maps. The proposal should enable Beacon MGM decoding to automatically feed DX cluster reports and maps, to show propagation automatically.

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| Vote: Agreed Against: 0, Abstentions: 2 |
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Technical Recommendations

Document VIE13_C5_05, Recommendations for DATV Transmission

It was highlighted that the Handbook should include technical recommendations Digital TV, as the current edition only has older analogue standards. The paper recommended that DVB-S to be adopted first, although others are starting to experiment with narrowband DVB-T. Narrowband DATV can give good QSOs and be attractive inside limited bandwidths on 70 cm and 3.4 GHz.

The 437MHz frequency in the original paper caused concerns to some, as it was considered to be incompatible with Satellites (OE3MZC). After discussion the plenary stated that the 70 cm bandplan is a wider problem because it based on legacy operating modes and needed a more general review. In order to make progress the 70cm band row and the FEC column was withdrawn and the table in the paper modified. It was made more generally applicable to other DATV modes by removing specific DVB-S and ETSI references.

Modified table:

DATV is recommended based on the following parameters:-

| Frequency Band | Symbol Rate (Msymbols/s) | Maximum Bandwidth |
|-----------------------------------|--------------------------|-------------------|
| 1.3 GHz Repeater i/p & simplex | 2.00 or 4.00 | 4 MHz |
| 1.3 GHz Repeater o/p | 4.00 | 4 MHz |
| 2.3 GHz | 4.00 | 4 MHz |
| 3.4 GHz | 2.00 | 2 MHz |
| 5.6 GHz | 4.00 | 4 MHz |
| All bands above 5.6 GHz | 4.00 | 4 MHz |

Established and/or open standards, along with a subset of Operating and frequency planning parameters, should be adopted to:-

- Ensure interoperability between DATV operators
- Ensure compatibility with readily available consumer hardware

Vote: Unanimous in favour

Document VIE13_C5_08: Repeater Access

DARC stated that since Sun City that the 2014 deadline to end toneburst access had caused a number of difficulties and that the Handbook was not consistent. Several other Societies also needed some flexibility for older systems. A sub-working group was created. The result on Sunday was to modify Section 8.8.4:-

(2) Operation

Repeaters should use either CTCSS or 1750Hz toneburst for access in order to prevent unwanted operation caused by interference or other signals. CTCSS is preferred for new FM repeaters - see below. DTMF can be optionally used to control repeater functions as per below.

(10) CTCSS (*First paragraph*)

The use of CTCSS is strongly encouraged for VHF and UHF FM repeaters in Region 1, with the aim of reducing inadvertent interference by users to repeaters sharing the same input channel. In order to minimise mutual unwanted interference, from 1-Jan-2015 all new FM repeaters should use CTCSS tones on receivers as well as on transmitters.

Vote: Unanimous in favour

Document VIE13_C5_15 Extend the modulation method for Internet Voice Gateways in the 70cm band
Document VIE13_C5_16 Extend the modulation method for Internet Voice Gateways in the 23cm band

UBA presented these two papers so that frequencies for Simplex Voice Gateways could use either FM or Digital Voice

Proposal: Modify footnote (n) and (f) on 70cm; and (e) in 23 cm. Delete the phrase "This segment is for simplex use only with no Digital Voice gateways."

Vote: Agreed Against: 0 Abstentions: NRRL, SSA, EDR.

Documents VIE13_C5_09(NRRL) & Document VIE13_C5_17(UBA) DV Simplex & Gateways in 2m

There initially was some disagreement regarding proposals for 2m DV gateways and dedicated DV simplex. A sub working group was create to consider the options in these two papers

The solution is mainly based on NRRL C5_09, and C5_17 by UBA was withdrawn.
 Handbook changes are:-

Amend MGM/APRS Block section to:

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|----------|--------|-------------------------------------|---|
| 144.794 | 12 kHz | MGM / Digital Communications | 144.8000 APRS 144.8125 DV Internet voice gateway 144.8250 DV Internet voice gateway 144.8375 DV Internet voice gateway 144.8500 DV Internet voice gateway 144.8625 DV Internet voice gateway |
| 144.9625 | | | |

Footnote h) Change

~~h) Network stations shall only operate in the part of the 145 MHz band allocated to Digital Communications and will be permitted only for a limited time. Such network stations should also have access ports on other VHF/UHF or Microwave bands and should not use the 145 MHz band to forward traffic to other network stations. In view of the time limitation the set up of new network stations is not encouraged (De Haan, 1993).~~

Unmanned packet radio stations and digital access points are ~~only~~ allowed in the segment 144.800 - 144.9625 MHz, provided they are fully compatible with 12.5kHz channel spacing. ~~Outside of this segment the signal level produced by those stations shall be not larger than 60 dB below the carrier level (measured in a 12 kHz bandwidth).~~ Any other unmanned packet radio and digital access points outside of this frequency range must cease operation ~~not later than 31 December 1997. (Tel Aviv 1996).~~

Vote: Unanimous in favour

2m DV Action Points:-

- Societies should review the usage of 144.8750 - 144.9625 by legacy systems to determine if part or all of this range would be suitable for DV simplex use, by the next Conference in Varna 2014
- Review all other footnotes in the 2m bandplan which are incorrect or now potentially obsolete (or propose a complete fresh, clear set)

Example of a current footnote to update:-

- a) Telegraphy is permitted over the whole band, **except for but preferably not in** the beacon band;

Document VIE13_C5_34 50 MHz Synchronised Beacons

Murray presented the initial part of the scheme for Synchronized beacons on 6m. Beacons in this scheme would use a 60s time sequence of CW and MGM and Repeat intervals should be not more than 4 min. If this was agreed additional issues on implementation could then be addressed. The Transition period for the other beacons that are not involved should be reviewed at Varna. It was important to involve the six metre community in nominating strategic sites (or missing areas that may need a new beacon), but that this initial 'technical' proposal would allow further planning.

The C5 Committee supported this proposal and asked for further ideas on the next stages.

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| Vote: All in favour except for one abstention (UBA) |
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Document VIE13_C5_02 70 MHz bandplan

Murray explained four points in the paper. Allocating 100kHz to beacons without careful coordination may eventually lead to a similar problem that occurred in 50MHz (and caused that band to be re-planned at Sun City). The 70.25 MHz Meter Scatter frequency was potentially outside its own section. (and activity reports suggest other frequencies are used in any case). On administration matters, the CEPT EU9 footnote had been slightly updated and that www.70MHz.org was now a key resource for amateurs - and some regulators!

There was no agreement on Meteor Scatter or efficient frequency management of beacons so those two points were withdrawn

Proposal: Add updates for only EU9 and 70MHz.org to the footnotes

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| Vote: Agreed. No Objections, Abstentions: 5 - SSA, NRRL, DARC, OEVSU, ARI. |
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Action: Review 70.25 MHz MS calling frequency for next conference

Document VIE13_C5_03 Increased Amateur-Satellite Service 144MHz Usage

Graham presented the paper on the increasing use of 2m by satellites and a desire to separate the linear modes from FM by using the under-used and noisy bottom of the 2m band, which had originally been harmonised for EME (but that is now slightly further up the band)

In order to accommodate some CW contests, the proposal was reduced from 35 to 25kHz (ie 144.000-144.025). If the other two Regions are also willing to go for 144.000 and 144.025, then IARU R1 will support this proposal.

(Note: Region-2 Conference is in Cancun, Mexico in September 2013)

Vote: Agreed

In favour: 10, Objections: 0

Abstentions: 7 - SRAL, UBA, SARA, CRC, VERON, OEVSU, ZRS.

Document VIE13_C5_04 Band Plan Modernisation & Updates

Murray presented a list of assignments that needed either updating or deleting. After a discussion the agreed set are:-

a) Fax

DELETE usage for FAX on 70.300 MHz – (Review others for Varna – eg merge to 'Image Mode?')

b) 145MHz

- Rename of 145.500. '(mobile) calling' to 'FM Calling' (to be consistent with 433.5 below)
- Move 144.630-144.660 Linear Transponder Outputs to national footnote
- Move 144.660-144.690 Linear Transponder Inputs to national footnote

c) 430MHz

- Move 432.5000-432.6000MHz - Linear Transponder Inputs to national footnote
- Move 432.6000-432.8000MHz - Linear Transponder Outputs to national footnote
- Rename of 433.500 '(mobile) FM calling' to 'FM calling' (to match separate DV calling)
- Move 439.9875 POCSAG (Paging) to national footnote

d) 1240MHz

- Change 1242-1243 Packet Radio (RS29-RS50) – to Digital Communications
- Change 1270-1271 Packet Radio (RS29-RS50) – to Digital Communications

New 'national usage' notes were considered a neater solution for some cases. These should assist the review of other footnotes as planned by VIE13_C5_18. The following are therefore added:-

National Usage Notes (for 2m)

Some countries have existing use at:

- 144.660-144.690 Linear Transponder Inputs
- 144.630-144.660 Linear Transponder Outputs

National Usage Notes (for 70cm)

Some countries have existing use at:

- 432.500-432.600 Linear Transponder Inputs
- 432.600-432.800 Linear Transponder Outputs
- 439.9875 POCSAG (Paging)

Recommendation: Update band plans and footnotes in the VHF Handbook as per above.

Vote: No objections, Others in favour; except for UBA abstention

Action Points:

- Review issue preventing 24125 move (Veron) as activity ought to be in the 24-24.05 Primary band
- Review Fax designations 144.7, 432.7, 433.7 MHz for update/merger/deletion

Document VIE13_C5_12 WSPR in the 144MHz band

Veron Proposal to slightly move the 2m WSPR Frequency from 144.4905 MHz to 144.4920 MHz to reduce interference with main beacons

Vote: Unanimously agreed.

Document VIE13_C5_14 Frequencies for Simplex Repeaters/Gateways in the 4m band

Jacques ON4AVJ proposed three frequencies on 4m for FM/DV automatic stations. RSGB indicated two were used in the UK for this but that it preferred 70.3624 to 70.400 (which UBA was believed to be comfortable with). Complete agreement with others was not quite possible.

Chair: Wiki will be set up by me to help collaboration and to clarify things in advance for VHF managers.

Vote: Accepted

Against proposal: Veron, NRRL, EDR.

Abstentions: DARC, ARI, OEVSU, SSA, SRAL.

Document VIE13_C5_18 A Complete review of the footnotes concerning the bandplans

Team to be formed for a thorough review (and if necessary rewrite or redaction) of the introductory text and footnotes for the next conference (also using the Wiki system). This would start from the release of the new post-Vienna version of Handbook (v6.3?), to be expected in June.

Moved to be an ACTION POINT.

Document VIE13_C5_23 Status of 50MHz Beacon Move

Raised by Jussi: Beacons on 6 m - Finnish Beacons have moved. Others have started to move. Slow start but gradually happening (and in IARU-R1 Beacon database)

Document VIE13_C5_27 New Narrow-Band working frequencies in the 2300 – 2450 MHz band

Discussion: Narrow band traffic must be allocated. Is it feasible to adopt a possible future bandplan now? Wait or not? Murray will keep us informed. We will start this project when required. A guard band is needed to prevent LTE affecting Wi-Fi and that is also vital for ourselves at the 2400 MHz band edge.

End of Saturday Presentations

- Graham G3VZV: Balloons in the UK
- Ivan OZ7IS: Beacons in OZ
- Jochen DL1YBL: Digital Voice on HF

Sunday - Contest Papers

Document VIE13_C5_07 Contest Evaluation Procedure

See also the Chairman's Report. The proposal was modified by the DARC, and will recalculate existing logs, improve contest robot. Martin Henz DL5NAH, on behalf of DARC, will take over for the coming three years (2013 – 2015), will rework the software, including recalculation for September and October 2012.

Vote: Unanimously adopted.

Document VIE13_C5_10 National VHF+ Activity Contests

NRRL highlighted the Nordic AC events. National societies may consider joining. Finland has some reservation, but still supports. Austria: Activity days every 3rd Sunday. Timing not conducive to portable operation and does not support operation on microwave bands. Contest calendars should be harmonised.

NRRL asked that their Information Paper be changed to a Proposal to include Info on the Nordic Activity contests and their times in the IARU Handbook, in order to trigger a vote.

Vote:

Against: ZRS, HRS, RSGB, SARA, CRC,
Abstention: ÖVSV

Chair: Move calendar of activities on IARU-R1 homepage, so that everybody can pick what he likes. Organisers are invited to align Sunday contests and add them to the IARU-R1 homepage.

Action: Alessandro, IV3KKW, will establish and update the contest calendar on the IARU homepage.

Document VIE13_C5_25 Definition of contest

Betty presented the REF paper – it wishes to define contests based on pure rf means

Action point: Put this into Wiki to seek consensus, then establish sub-working group to define the behaviour of radio amateurs doing contacts.

Vote: Agreed. (though not unanimous)

Document VIE13_C5_11 New IARU-R1 SSB/CW 70MHz Contest

Proposed by Veron to increase activity on 4 m. Key Issues on contest timing and duration were raised.

Action point: Put this into Wiki to achieve consensus, contact primary user (military), VERON shall act as lead society.

Vote: unanimously agreed.

Document VIE13_C5_13 Amendment of ATV Contest Rules

Veron propose a major update of the IARU ATV contest rules. This added a rover rule. Concerns raised on remote operation restrictions and some keen to include afternoons within the timing for better propagation

Action point: Put it into the Wiki for discussion and refinement. Then VERON will make proposal for Conference.

Vote: Unanimously agreed.

Document VIE13_C5_19 Email Address for ATV Contest Logs

Jaques: Establish an IARU e-mail address for contests, which has not yet been defined.

Vote: Veron abstains, all others agree

Document VIE13_C5_26

Discussion about the time limits for sending in the logs to the robot within 48 hrs or 8 days, week, which could be shortened. Original 48hr proposal rejected. Instead clarify current rule:-

Change text 5.3.10:

The entries must be set out in digital/electronic form fulfilling the requirements under rule. Logs must be sent to the national VHF Manager or the national Contest Committee and/or ~~parallel~~ the IARU Contest robot not later than the second Monday following the contest weekend. Late entries will not be accepted. The submission of the logs implies that the entrant accepts the contest rules.

Vote: Unanimous in favour

Document VIE13_C5_31 Amendment to IARU-R1 ATV Contest Date

Murray highlighted that for several years that there is a date conflict of between the TV contest and the IBC TV industry show in Amsterdam. Murray withdrew the specific suggestion of October to gain agreement in principle. The actual date change would be confirmed in Varna, to become effective in 2015.

Vote: No objections - Agreed except for UBA abstained.

Document VIE13_C5_28 Proposal to avoid Copyright problems for IARU Magazines

Chair handed over to Hans PB2T. Copyright law can become a serious problem. This requires an amateur radio friendly solution. However it is for Committee C3 to decide at the next Conference

C5 agreed unanimously.

Sunday 11:57 Meeting Closing by OE1MCU.

OE1MCU wishes Hans, PB2T, all the best for his birthday. The RSGB is 100 years old – congratulations!

Hans thanked OEVSFV for the hospitality. Much work had been done. Still some work for Michael and Ulli, also some long-term work for the next Conference. Travel home safely.

NRRL presented an award plaque to Tom, LA4LN.

End of minutes

IARU Positions on WRC-15 Agenda Items

The International Amateur Radio Union (IARU) is a federation of national amateur radio associations in more than 160 countries and is the international organization recognized by the ITU under **CV 231** to represent the interests of the more than three million licensees in amateur and amateur-satellite services. The IARU is a Sector Member of the ITU Radiocommunication and Telecommunication Development Sectors.

To facilitate experimentation and communication by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest (No. **1.56**), the amateur and amateur-satellite services have been afforded frequency allocations at intervals throughout the radio spectrum from as low as 135.7 kHz to as high as 250 GHz.

The IARU has reviewed the agenda for the 2015 World Radiocommunication Conference contained in Resolution **807 (WRC-12)**. Some of the existing amateur and amateur-satellite service allocations, and in particular most of those between 225 MHz and 24 GHz, are on a secondary basis to other existing services. In general, the amateur services have been able to make constructive use of these secondary allocations without causing harmful interference to primary services. When allocations to new services in a band that is presently allocated to the amateur services are being considered it is important that the existing and likely future uses of the band by the amateur services be taken into account, whether the amateur service allocation is on a primary or a secondary basis.

The IARU has adopted the following positions with regard to the agenda items that are relevant to the amateur and amateur-satellite services.

Agenda Item 1.1 – “to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-12)**,”

IARU Position: The IARU recognizes that there is great pressure on the portion of the radio spectrum that is best suited for terrestrial mobile broadband applications. The amateur service allocations between 450 MHz and 6 GHz are all on a secondary basis to other existing services. The amateur-satellite service allocations in this frequency range are on either a secondary or a not-to-interfere basis.

The existing allocations to the amateur service in this frequency range are 902-928 MHz (in Region 2), 1240-1300 MHz, 2300-2450 MHz, 3300-3500 MHz (in Regions 2 and 3 along with 3400-3475 MHz in certain countries in Region 1), and 5650-5925 MHz (5650-5850 MHz in Regions 1 and 3).

The existing allocations to the amateur-satellite service in this frequency range are 1260-1270 MHz (Earth-to-space only), 2400-2450 MHz, 3400-3410 MHz (in Regions 2 and 3 only), 5650-5670 MHz (Earth-to-space only), and 5830-5850 MHz (space-to-Earth only).

The identification of 2300-2400 MHz for the possible implementation of IMT is already placing significant constraints on the use of this band by amateurs. The band 3400-3500 MHz is already identified for the possible implementation of IMT, subject to certain constraints, in a number of countries in Regions 1 and 3.

European Common Frequency Allocation Table Footnote EU17 provides: “In the sub-bands 3400-3410 MHz, 5660-5670 MHz, 10.36-10.37 GHz, 10.45-10.46 GHz the amateur service operates on a secondary basis. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these sub-bands in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.”

As consideration is given to the identification of additional frequency bands for IMT, or for the extension of bands already so identified to additional countries or regions, care must be taken to maintain useful access to the radio spectrum at suitable intervals by the amateur and amateur-satellite services.

Agenda Item 1.4 – “to consider possible new allocation to the amateur service on a secondary basis within the band 5 250 - 5 450 kHz in accordance with Resolution **649 (WRC-12)**.”

IARU Position: The addition of a new allocation within the band 5250 – 5450 kHz is a high priority for the amateur service. Resolution **649 (WRC-12)** explains why:

- Communications in the HF bands allocated to the amateur service play a major role in work to mitigate catastrophes and in the delivery of communications in support of relief operations in areas where the telecommunication infrastructure is weak or has collapsed.
- Radiocommunication in the HF bands is dependent on propagation factors, with the result that frequencies in different bands have to be used.
- For amateur stations using typical antennas and power levels, it is important that the maximum usable frequency (MUF) not be excessively above the operating frequency.
- In the current allocations to the amateur service in the HF bands there is a significant gap between 4000 kHz (3800 kHz in Region 1 and 3900 kHz in Region 3) and 7000 kHz, which causes problems in maintaining communications when the MUF falls below 7 MHz.

Resolution **649 (WRC-12)** invites WRC-15 to consider “the possibility of making an allocation of an appropriate amount of spectrum, not necessarily contiguous, to the amateur service on a secondary basis within the band 5 250-5 450 kHz” based on the results of ITU-R studies of spectrum requirements for the amateur service and the impact to other services currently allocated in this band and adjacent bands.

In response to Agenda Item 1.15 WRC-12 created a new allocation of 5250-5275 kHz (among others) for the radiolocation service, limited to oceanographic radars operating in accordance with Resolution **612 (Rev.WRC-12)**. The CPM Report for WRC-12 concluded that for oceanographic radars, “Sharing with amateur, broadcasting, and radio astronomy services seems to be difficult due to their protection requirements.” With respect to sharing with the amateur service the difficulty arises mainly because the operation of an oceanographic radar on a particular frequency is expected to be more or less continuous (see Recommendation ITU-R M.1874-1), offering no opportunity for time-sharing. By contrast, the operation of an amateur station is both intermittent in time and variable in frequency to adjust to changing propagation conditions and to avoid interference.

In considering the “appropriate amount of spectrum” to the amateur service it should be borne in mind that the administrations wishing to implement an amateur allocation domestically as well as the amateur operators desiring to utilize it will benefit from there

being the greatest possible flexibility afforded by the international Table of Frequency Allocations.

An allocation to the amateur service within the band 5250-5450 kHz is envisioned to be on a secondary basis. Stations of a secondary service must operate so as to avoid causing harmful interference to stations of primary services. In the aftermath of a major natural disaster afflicting a region in which several languages are spoken the IARU estimates that there could be a need for amateur networks in the 5 MHz band to use approximately 16 separate frequencies simultaneously, each with a bandwidth of approximately 3 kHz, in order to provide voice and data communications. While this suggests that an “appropriate amount” of spectrum might be less than the 200 kHz suggested above, in such a situation the selection of operating frequencies by amateurs will be constrained by the need to avoid frequencies occupied by stations of primary services.

Further, as amateur communication increasingly uses digital modes of emission, inter-symbol distortion caused by multipath propagation requires choice of an operating frequency as near as possible to the MUF.

Accordingly, the IARU requests that consideration be given to a secondary allocation of as much spectrum as possible within the band 5250-5450 kHz.

Agenda Item 1.6.1 – “(to consider possible additional primary allocations) to the fixed-satellite service (Earth-to space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1;”

IARU Position: The band 10.0-10.5 GHz is allocated to the amateur service on a secondary basis. It is a popular band for amateur experimentation, investigation of propagation phenomena, and point-to-point communication between networked repeater stations.

The band 10.45-10.5 GHz is allocated to the amateur-satellite service on a secondary basis. Owing to the popularity of the 10.0-10.5 GHz band for terrestrial amateur communication, increased use of this allocation for amateur satellite communication is anticipated.

European Common Frequency Allocation Table Footnote EU17 provides: “In the sub-bands 3400-3410 MHz, 5660-5670 MHz, 10.36-10.37 GHz, 10.45-10.46 GHz the amateur service operates on a secondary basis. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these sub-bands in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.”

The IARU requests that existing and future use of this band be taken into account and continue to be provided for.

Agenda Item 1.10 – “to consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution **234 (WRC-12)**;”

IARU Position: Above 440 MHz, the band 24.0-24.05 GHz is the lowest frequency primary allocation to the amateur and amateur-satellite services. The next lowest primary allocation is at 47.0-47.2 GHz. The 24.05-24.25 GHz band is allocated to the amateur service on a secondary basis. While the designation of the 24.0-24.25 GHz band for ISM applications and the high water vapor absorption at this order of frequency create challenges, amateurs are actively pursuing experimentation in this band. Maintaining the primary allocation and assuring that any new services introduced into the band are compatible with the amateur and amateur-satellite services is essential for the continuing contribution by radio amateurs to the body of experience and knowledge of microwave equipment construction, operation, and propagation research.

Agenda Item 1.12 – “to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300 - 9 900 MHz by up to 600 MHz with the frequency bands 8 700 - 9 300 MHz and/or 9 900 - 10 500 MHz, in accordance with Resolution **652 (WRC-12)**;”

IARU Position: As noted under Agenda Item 1.6.1, the band 10.0-10.5 GHz is allocated to the amateur service on a secondary basis. It is a popular band for amateur experimentation, investigation of propagation phenomena, and point-to-point communication between networked repeater stations.

The band 10.45-10.5 GHz is allocated to the amateur-satellite service on a secondary basis. Owing to the popularity of the 10.0-10.5 GHz band for terrestrial amateur communication, increased use of this allocation for amateur satellite communication is anticipated.

The IARU requests that existing and future use of this band be taken into account and continue to be provided for. An illustration of how this can be accomplished is found in Recommendation ITU-R RS.1260-1; see No. **5.279A** which applies to the use of the band 432-438 MHz by the Earth exploration-satellite service (active).

Agenda Item 1.18 – “to consider a primary allocation to the radiolocation service for automotive applications in the 77.5 - 78.0 GHz frequency band in accordance with Resolution **654 (WRC-12)**;” and

IARU Position: Currently the only primary incumbent services in the band 77.5-78.0 GHz are the amateur and amateur-satellite services. These services also have secondary allocations in the adjacent bands of 76.0-77.5 GHz and 78.0-81.5 GHz. Amateur experimentation in the band is ongoing.

When allocations to services between 71 GHz and 84 GHz were made for the first time at WARC-79, the amateur and amateur-satellite services received a primary and exclusive allocation of 75.5-76.0 GHz and a secondary allocation of 76.0-81.0 GHz. The allocation of 75.5-76.0 GHz was withdrawn at WRC-2000 and as compensation the band 77.5-78.0 GHz was upgraded to primary and No. **5.561A** was added, creating a new secondary allocation to the amateur services at 81.0-81.5 GHz.

The IARU acknowledges that there are significant benefits to be gained from worldwide standards for technologies such as automotive radars. However, automotive radars are classic examples of short- range devices (SRDs) for which, in general, allocations are neither essential nor appropriate.

Should a primary allocation to the radiolocation service for automotive applications nonetheless be added to the 77.5 – 78.0 GHz frequency band, the IARU earnestly requests that the primary allocation to the amateur and amateur-satellite services be maintained; or, in the alternative, that a suitable replacement allocation be provided on a primary basis within the band 71 – 84 GHz.

Agenda Item 8 – “to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution **26 (Rev.WRC-07)**,”

IARU Position: There are a number of country footnotes that apply to amateur service allocations, some of which appear to be obsolete. In particular, the IARU invites the administrations listed in Nos. **5.98, 5.99, 5.102, 5.119, and 5.122** relating to the bands 1810-1830 kHz, 1850-2000 kHz, 3500-3750 kHz, and 3750-4000 kHz to consider proposing the deletion of their country names from these footnotes.

Agenda Item 9.1.4 – Updating and rearrangement of the Radio Regulations (Resolution **67 (WRC-12)**)

IARU Position: The scope of ITU-R “studies for possible updating, review and possible revision of outdated information” in the Radio Regulations envisioned by Resolution **67 (WRC-12)** does not exclude Article **25, Amateur services**. Article **25** was last revised by WRC-03 and is not reviewed for possible revision on a regular basis.

Article **25** includes restrictions on communications by amateur stations on behalf of third parties that are clearly outdated in view of the vast array of telecommunications alternatives now available to individuals. Specifically, No. **25.3** states: “Amateur stations may be used for transmitting international communications on behalf of third parties only in case of emergencies or disaster relief. An administration may determine the applicability of this provision to amateur stations under its jurisdiction.”

Restrictions on international communications by amateur stations on behalf of third parties date to the 1932 International Radiotelegraph Conference held in Madrid and originally were intended to protect the revenues of telecommunications monopolies and to discourage “uneconomic bypass” of common carriers. Such concerns are no longer relevant, and No. **25.2** is sufficient to protect the non-commercial nature of the amateur service. No. **25.2** reads: “Transmissions between amateur stations of different countries shall be limited to communications incidental to the purposes of the amateur service, as defined in No. **1.56** and to remarks of a personal character.”

In the absence of a determination by an administration that the limitation on international communications on behalf of third parties to cases of emergencies or disaster relief does not apply to amateur stations under its jurisdiction, amateurs under the jurisdiction of that administration as well as amateurs communicating with them from other jurisdictions are prohibited from conducting even the most mundane and routine communication on behalf of friends, family members and the general public. This has a chilling effect on demonstrations of the amateur service to the public as well as on training exercises to develop skills for use in emergencies and disaster relief.

Accordingly, the IARU supports the revision of No. **25.3** to read: “Amateur stations may be used for transmitting international communications on behalf of third parties consistent with No. **25.2** as well as in case of emergencies or disaster relief.”

Agenda Item 9.1.8 – Regulatory aspects for nanosatellites and picosatellites (Resolution **757** (WRC-12))

Resolution **757** calls for the results of studies of the procedures for notifying space networks that presently apply to nanosatellites and picosatellites to be reported to WRC-15. Because of the possible implications of these studies for the amateur and amateur-satellite services, the IARU is following the progress of these studies attentively. Nanosatellites and picosatellites that are properly licensed in the amateur-satellite service and are operated consistent with the purposes of the amateur and amateur-satellite services as defined in Nos. **1.56** and **1.57** may utilize the provisions of Resolution **642**.



VIENNA 2013

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE VIENNA April 19..- 21. 2013

Appointment of proxy for the C4 and C5 Meeting
(Please delete as applicable)


(NARS)

We, NIGERIA AMATEUR RADIO SOCIETY
(name of society giving proxy)

hereby appoint DARC
(name of society to hold proxy)

to hold the proxy on our behalf for the duration of the C4 and C5 Meeting (2013
IARU Region 1 Sub Working Group in Vienna, Austria).

Signed:



Call Sign:

5N7MBA

Position in Society: Head of Delegation

Secretary General.



INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE VIENNA April 19.- 21. 2013

Appointment of proxy for the C4 and C5 Meeting
(Please delete as applicable)

The South African Radio League
(*name of society giving proxy*)

hereby appoint the Radio Society of Great Britain (RSGB)

to hold the proxy on our behalf for the duration of the C4 and C5 Meeting (2013
IARU Region 1 Sub Working Group in Vienna, Austria).

Signed: _____

Call Sign: _____

2S6AKV

Position in Society: *Councillor Regulatory*



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LAGKV, TO VOTE ON BEHALF
OF SSA IN ALL MATTERS
CONCERNING COMMITTEE C5
DURING THE IARU REGION I
INTERIM MEETING IN
VIENNA APRIL 20-21, 2013.

ON BEHALF OF SSA

ERIC LUND SM6JSM
HF MANAGER, SSA

SIGNED IN VIENNA APRIL 20, 2013

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