International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**Committee C4 AGENDA**		
Society	**IARU R1**	**Country:**	**HF Committee**
Committee:	**C4**	**Paper number:**	**VIE13/C4/01rev1**
Contact:	**Ulrich Mueller, DK4VW**	**e-mail:**	**dk4vw@darc.de**

1. **Opening of the HF Committee meeting**
2. **Introduction of Delegates and Observers**
3. **Agreement of the Agenda**
4. **Bandplan Matters**

4.1 Amendment to the 28MHz Bandplan in relation to the Amateur Satellite Service	**RSGB**	**VIE13/C4/02**
4.2 Alignment of the 30M Digital Modes Bandplan	**RSGB**	**VIE13/C4/03**
4.3 The future of the 30 m (10 MHz) band	**NRRL**	**VIE13/C4/04**
4.4 Assign frequencies for unmanned beacons in all of the HF-bands	**UBA**	**VIE13/C4/05**
4.5 Bandplan for the 630 m band	**NRRL**	**VIE13/C4/06**

5. **Operating**

5.1 Operating Practices for the DXpeditioner	**RSGB**	**VIE13/C4/07**
5.2 Operation at 5MHz and WRC15	**RSGB**	**VIE13/C4/08**
5.3 Shortwave links for Digital Communications and Voice	**DARC**	**VIE13/C4/14**

6. Contest Matters

6.1 Contest free 3rd full weekend in October for recruitment of young radio amateur via Jamboree-on-the-Air (JOTA) **NRRL VIE13/C4/09**

6.2 Contest rules – Definition of a contest **REF VIE13/C4/10**

7. IARU Position on WRC15

7.1 Worldwide alignment of the 160 meter band **IARU-R1VIE13/C4/11**

7.2 WRC-15 Agenda Items **IARU-R1VIE13/C4/12**

8. Publications

8.1 Proposal to avoid copy right problems for articles exchanged between IARU, Region 1, magazines. **EDR VIE13/C4/13**

9. Any other business

10. Date and venue for the next HF Committee meeting

11. To close the business of the HF Committee Interim meeting

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SUBJECT	**Amendment to the 28MHz Bandplan in relation to the Amateur Satellite Service**		
Society	**RSGB**	**Country:**	**UK**
Committee:	**C4**	**Paper number:**	**VIE13/C4/RSGB1**
Contact:	**Ian Greenshields, G4FSU**	**e-mail:**	**ian.greenshields@gmail.com**

Introduction

The Amateur Satellite Service has ITU allocations that it shares with the amateur service on the 7, 14, 18, 21, 24 and 28MHz bands. Only in the 28MHz does our HF band plan define any specific preferred section of the band for amateur satellite operation. This is the section 29.300-29.510MHz. It is denoted in the R1 bandplan as 'downlink only'.
It is uncertain why this restriction was ever placed in the bandplan as the ITU Radio Regs do not require it. It would actually make a very useful uplink band for small spacecraft as the path losses and Doppler shift are both very low and a reduced size receive antenna on the spacecraft could still provide a usable link budget with most HF transceivers.

Background

It is understood that the 'downlink only' wording originated some 30+ years ago, when AO7, which is still operational, and some Soviet spacecraft used the band for downlinks. i.e. it reflected actual usage at the time rather than being intended as a sensible constraint.

It is noted that, whilst the Region 2 HF bandplan presently has the same wording, the recently published Region 3 bandplan does not.

Recommendation

That the 'downlink only' constraint from the usage column of the 28MHz Band plan in the section 29.300-29.510MHz be removed.

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SUBJECT	**Alignment of the 30M Digital Modes Bandplan**		
Society	**RSGB**	**Country:**	**UK**
Committee:	**C4**	**Paper number:**	**VIE13/C4/RSGB4**
Contact:	**Ian Greenshields, G4FSU**	**e-mail:**	**ian.greenshields@gmail.com**

Introduction

The 30 metre band from 10.100-10.150MHz is the smallest allocation in the HF spectrum. Although propagation in this band allows for 24 hours a day communication over many parts of the World, the band plans between Regions 1, 2 and 3 are different, notably in the digital mode segment, resulting in regular operation outside the published bandplans.

Background

The bandplan at 30 metres for Regions 1, 2, and 3 is shown in the table below:

Frequency	Region 1	Region 2	Region 3
10.100 – 10.130 MHz	CW	CW	CW
10.130 – 10.140 MHz	CW	Narrow band digimodes <500Hz	CW
10.140 – 10.150 MHz	Narrow band modes - digimodes <500Hz	Digimodes <2700Hz	Digimodes (bandwidth not specified)

Increasing interest in digital modes in Region 1 has resulted in digital mode activity spreading down below 10.140MHz as the 10kHz allocation from 10.140-10.150MHz is overcrowded and significant Region 2 digital mode activity is anyway present in Region 1 for many hours of the day.

The popularity of the 30 metre band for DXpeditions and the propagation characteristics usually mean that the DX station operates on frequencies between 10.130 and 10.140MHz, which is outside the band plan except in Region 2.

Observation over a number of years has shown that CW activity on 30 metres is predominantly below 10.130MHz and only rarely extends above, usually when major DXpeditions are active.

Thus, it is believed that changing the Region 1 band plan in the segment from 10.130 - 10.140MHz to permit both CW and narrowband digimodes <500Hz would bring the bandplan into line with current activity and also be consistent with the Region 2 bandplan. It should be noted that the intention is not to exclude CW from the segment, but to provide a buffer for both modes to coexist whilst allowing some flexibility in the band plan at times of high occupancy in any particular mode.

It is additionally hoped that Region 3 would also consider a similar move so that the 30 metre bandplan is fully aligned worldwide with current operating practices.

Recommendation

1. That the Region 1 bandplan at 30 metres be changed to allow both CW and narrowband digimodes of less than 500Hz bandwidth in the frequency range from 10.130-10.140MHz.

2. That Region 3 be encouraged to also adjust their band plan to harmonise the 30 metre band Worldwide.

In table form, the proposal for Region 1 is shown below with changes in italics:

Frequency	Region 1	Region 2	Region 3
10.100 – 10.130 MHz	CW	CW	CW
10.130 – 10.140 MHz	*Narrow band modes - digimodes <500Hz*	Narrow band digimodes <500Hz	CW
10.140 – 10.150 MHz	Narrow band modes - digimodes <500Hz	Digimodes <2700Hz	Digimodes (bandwidth not specified)

Noting that CW QSOs are accepted across all bands, except within beacon segments (Recommendation DV05_C4_Rec_13), CW is still accepted in the segment above 10.130MHz.

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SUBJECT	**The future of the 30 m (10 MHz) band**		
Society	**NRRL**	**Country:**	**Norway**
Committee:	**C4**	**Paper number:**	**VIE13/C4/…**
Contact:	**Tom V. Segalstad, LA4LN**	**e-mail:**	**LA4LN@arrl.net**

Introduction
NRRL invites to a discussion of the future of the 30 m band at the IARU Region 1 Interim Meeting 2013.

Background
The 30 m (10 MHz) band was assigned to amateur radio *on a secondary basis* by WARC-79 (World Allocation Radio Conference 1979). The radio amateurs were permitted to use 50 kHz (10100 - 10150 kHz). The present IARU Region 1 bandplan (as of Sun City, August 2011) is 10100 - 10140 CW with max. bandwidth 200 Hz, and 10140 - 10150 kHz digimodes with max. bandwidth 500 Hz (narrow band modes). 10116 kHz is assigned to CW QRP center of activity.

It should be noted that *IARU Region 2* permits 500 Hz maximum bandwidth in 10130 - 10140 kHz, and 2.7 kHz maximum bandwidth in 10140 - 10150 kHz. *IARU Region 3* has no maximum bandwidth specified in the 30 m band.

Considerations
30 m is a day + night world-wide propagation band, and will therefore also spread signals internationally, not only domestically.

There is now quite some unattended automated computer use of the 30 m band, where we (radio amateurs) have secondary status, giving many chances of interfering with primary users of the band.

We are concerned about that too many automatic (unattended) amateur radio services are active in the 30 m band, when the band is so narrow (only 50 kHz wide), giving less space for ordinary amateur-to-amateur contacts, when the bandplan is not obeyed by a number of automated digital station users.

We experience that especially the digital activities in the 30 m band are expanding beyond the IARU Region 1 bandplan regulation. This was not intended by IARU Region 1 during bandplanning. The bandplan calls for CW only in the lower 40 kHz of

the 30 m band, and that the upper 10 kHz be used for narrow band modes - digimodes, with bandwidth less than 500 Hz.

What is the use of fixed frequencies in the 30 m band today within IARU Region 1? Note: The frequencies (in kHz) listed below are USB dial frequencies (and I cannot guarantee that the list is correct or complete).

10135.4 & 10136.9 Pactor PA3DUV
10138.0 & 10139.5 Pactor LZ1PKS
10139.5 & 10141.0 Pactor PA3DUV
10138 WSPR
10140-10142 PSK
10142.5 & 10144.0 Pactor S51SLO
10144.0 & 10145.5 Pactor ON0FS
10144.1 & 10145.6 Pactor EA8RCT
10144.4 & 10145.9 Pactor HB9AK
10144.9 & 10145.9 Pactor-3 LZ1PKS
10145.0 & 10146.5 Pactor OE3XEC
10146.0 & 10147.5 Pactor ON0FS
10146 & 10147 PSKMail http://pskmail.wikispaces.com/PSKmailservers
10147.8 APRS.

Our point is to show that the upper 15 kHz (30%) of our narrow 10100-10150 kHz 30 m band is now completely filled by automatic digital services (plus some manual digital activity frequencies) in IARU Region 1. And that the 10 kHz wide digital segment is so filled, that the automatic digital services now have expanded into the 10100-10140 kHz CW-only portion of the band.

We observe that at least one automatic station is using PACTOR-3, which will with its approx. 2.4 kHz wide bandwidth (on two frequencies) be in serious conflict with the IARU Region 1 bandplan call for maximum 500 Hz bandwidth in the 10 kHz narrow digimode segment. (PACTOR and PACTOR-2 have 300 and 450 Hz bandwidth, respectively, and should comply with the IARU Region 1 bandplan's bandwidth for digital modes in the upper 10 kHz of the 30 m band).

There is now no room for the casual RTTY chat in the upper 10 kHz (or even 15 kHz) of the 30 m band. And definitely no room for RTTY DXing, like we now see when DX stations are trying to operate RTTY at 10140 kHz listening for the pile-up in the 10 kHz segment above. Where RTTY stations should operate, according to the IARU Region 1 bandplan.
We therefore see that RTTY is now forced to operate below 10135 kHz, making even less space for CW-only communication.

Existing recommendations
IARU Region 1 recommendation of De Haan 1993 - C4.3:
It is recommended that:
Transmission modes which are inefficient in their use of spectrum or which have potential to cause serious interference problems to normal HF operations should be strongly discouraged on bands below 30 MHz.
Therefore we ask: is it really necessary to have such a high number of automatic computer operated digital mode stations in the 30 m (10 MHz) band, when limiting "normal HF operations"?

We see that the automatic (unattended) computer activities flourish on 30 m. "Automatically controlled data stations" have been assigned special frequency segment *in other bands* -- but intentionally NOT in the 30 m band. There has until recently been a footnote in the IARU Region 1 bandplan that even news bulletins should *not* be transmitted in the 30 m band.
The present IARU bandplan says in general about *unmanned transmitting stations*:

IARU member societies are requested to limit this activity on the HF bands.
It is recommended that any unmanned transmitting stations on HF shall only be activated under operator control
exept for beacons agreed with the IARU Region 1 beacon coordinator, or specially licensed experimental stations.
The term "automatically controlled data stations" includes Store and Forward stations.

At the IARU Region 1 Interim Meeting in Friedrichshafen 2006 it was stated by the IARU Region 1 President that we should be careful in using unattended transmissions in the 10 MHz band. With reference to the Resolution DV05 C4 Rec 08, where **beacons in the 7 and 10 MHz bands are discouraged**. The main reason is that **"it was imperative not to cause interference to the primary user"** (cited from minutes of the Friedrichshafen 2006 IARU Region 1 Interim Meeting). For the same reason contests are discouraged in the 30 m band (HF Managers' Handbook, Ch. 8.1, Subchapter 8).

What to do?
1) Should we discourage all automatic stations in the 30 m band, so that it will again be possible to use its upper 10 kHz narrow-band digital segment for keyboard-to-keyboard digital QSOs?

2) Or is this now a lost case, so that we must modify the IARU Region 1 bandplan to allow for both manual and automatic digital transmissions at different frequency segments?

3) Should we keep the present bandwidths in the IARU Region 1 bandplan (10110 - 10140 kHz @ 200 Hz CW; 10140 - 10150 @ 500 Hz digital); or should we adopt the IARU Region 2 bandplan for the 30 m band (10110 - 10130 kHz @ 200 Hz CW; 10130 - 10140 kHz @ 500 Hz digital; 10140 - 10150 @ 2.7 kHz digital)?

4) This matters the placement of Winlink/WINMORE in the 30 m band. This technique has shown to be a robust way of communicating emergency messages worldwide. Should its use be restricted to the 10140 - 10150 kHz segment, without using PACTOR-3, to be in compliance with the present IARU Region 1 bandplan? For this to be successful, all other automatic stations should be discouraged in the 30 m band.

NRRL invites to a discussion of the future of the 30 m band at the IARU Region 1 Interim Meeting 2013.

Based on the background, considerations, and recommendations for the 30 m band (cited above), NRRL wants to *propose* the following recommendation, which can be discussed or modified at the Interim Meeting:

Recommendation
All member societies are requested to make actions in order to adhere to the IARU Region 1 bandplan including its notes (especially to limit unmanned transmitting stations) especially in the 30 m band. Automatic Winlink/WINMORE stations are permitted in the digimode segment for emergency use, and should adhere to the IARU Region 1 bandplan also with respect to bandwidth limitations.

But then we need to decide if the present 30 m bandplan is good, or if it should be changed?

Appendix
G3NRW provides updated usage of the 30 m band on his web pages:
http://homepage.ntlworld.com/wadei/30m_band_utilization.htm
http://homepage.ntlworld.com/wadei/121122_30m_Band_Utilization_Chart.pdf

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Committee C4 (HF Matters) Interim Meeting
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SUBJECT	**Assign frequencies for unmanned beacons in all of the HF-bands**		
Society	**UBA**	**Country:**	**Belgium**
Committee:	**C4**	**Paper number:**	**VIE13/C4/05**
Contact:	**Carine Ramon, ON7LX** **Filip Schollaert, ON4PC**	**e-mail:**	**ON7LX@telenet.be** **on4pc.filip@gmail.com**

Background

The software program "WSPR" has become a good means for study of propagation. Many radio amateurs keep their station running unattended in order to monitor propagation and to allow other radio amateurs to monitor propagation.

Current situation

In the existing IARU region 1 HF band plan, there are frequency-ranges allocated in some of the bands but not all of them.

Why is there need for a change?

To allow the use of unmanned beacons in all of the HF-bands.

Proposal

To recommend additional frequency-ranges in the 2200m, the 160m, the 40m and the 30m bands. This can be done by adding the following in the "IARU Region 1 HF BAND PLAN".

Frequency	Max BW	Preferred mode and usage
137.2 – 137.8 kHz	500	Narrow band modes - digimodes, automatically controlled data stations (unattended)
1838 – 1838.5 kHz	500	Narrow band modes - digimodes, automatically controlled data stations (unattended)
7040 – 7043 kHz	500	Narrow band modes - digimodes, automatically controlled data stations (unattended)
10140 – 10141 kHz	500	Narrow band modes - digimodes, automatically controlled data stations (unattended)

Remarks : The allocation 7040 – 7043 should replace the current allocation 7047 – 7050 to correspond with the currently established frequency in use for WSPR in the 40m band.

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SUBJECT	**Bandplan for the 630 m band**		
Society	**NRRL**	**Country:**	**Norway**
Committee:	**C4**	**Paper number:**	**VIE13/C4/06**
Contact:	**Tom V. Segalstad**	**e-mail:**	**LA4LN@ARRL.NET**

Background

The 630 m (472 - 479 kHz) band was recently assigned to amateur radio *on a secondary basis* by WRC-12 (World Radio Conference 2012). Radio amateurs ask for an IARU Region 1 bandplan.

Considerations

1) A bandplan should allocate segments for CW beacons, CW only activity, and narrowband digimodes.

2) The band is not wide enough to allow wide band (2.7 kHz wide) phone or digimodes.

3) Narrow-band (max. 500 Hz bandwidth) digital modes should be allowed in the upper part of the band, higher than the CW only segment (analogous to other amateur radio bands).

4) CW only (max. bandwidth 200 Hz) is suggested to be allocated in the lower 3 kHz of the band, while CW + digimodes (max. bandwidth 500 Hz) are suggested to be allocated in the upper 4 kHz of the band. The maximum bandwidths are in accordance with the present bandplan for 30 m (10 MHz), another narrow amateur radio band.

Recommendation

From the viewpoints of NRRL we would (at the time being) like to present the following proposal for a 630 m IARU Region 1 bandplan:

472 - 479 kHz (630 m)

472 - 475 kHz	**CW only – maximum bandwidth 200 Hz**
472.000 - 472.150	CW Beacons only (IARU coordinated)
472.150 - 472.300	CW QRSS
472.600	CW DX Calling
474.750	CW Calling
475 - 479 kHz	**CW + digimodes – maximum bandwidth 500 Hz**

Contests should be discouraged in this very narrow 630 m band where radio amateurs are secondary users.

Comment:
NRRL feels that it will be premature to further subdivide different digimodes. This may be better to do at the next conference, if necessary, after considering experiences.

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SUBJECT	**Operating Practices for the DXpeditioner**		
Society	**RSGB**	**Country:**	**UK**
Committee:	**C4**	**Paper number:**	**VIE13/C4/07**
Contact:	**Ian Greenshields, G4FSU**	**e-mail:**	**ian.greenshields@gmail.com**

Introduction

Behaviour on the HF bands continues to be a major source of concern to society members. The RSGB, in conjunction with other IARU member societies, continues to be a strong supporter of the DX Code of Conduct and encourages all members and DXers to read and abide by its guidelines.

Background

IARU Region 1 endorsed the DX Code of Conduct in 2011 with its recommendation SC11_C4_06 that 'urges its member societies to publicise and recommend it to their members'.

Until recently, the focus of the DX Code of Conduct has been on the behaviour of the DX chaser. Some recent high profile DXpeditions have highlighted the need to ensure that a similar expectation for operating behaviour lies in the hands of the DXpedition operators themselves. It has been very apparent that cases of deliberate interference occur much more readily with poor or inexperienced operators at the DX station, and cases of infrequently identifying, or failing to maintain control of the spread of the pile-up, is contributing to frustration and unruly behaviour. Thus the DX Code of Conduct now has a section for DXpeditions also, and the RSGB will encourage and promote adherence the DX Code of Conduct for both DX chasers and expeditioners.

The DX Code of Conduct now has two sections, one for DX chasers and one for DXpeditioners. The full details can be found at www.dx-code.org and the key elements of the DXpedition code are at:

http://www.dx-code.org/DXpednew.html

It should also be noted that certain organisations providing funds to DXpeditions are now requiring adherence to the DX Code of Conduct for sponsorship. In addition and in conjunction with the DX University, a friendlier version has been developed and this can be seen at:

http://www.dxuniversity.com/showpage.php?id=20&title=Best_Practices_for_DXpedition_Operating

and in summary in Annex 1 of this paper. This link with the US based DX university is seen as an important contact to US DXpedition funds.

Recommendation

That member societies endorse and promote the DX Code of Conduct for DXpeditions.

Annex 1. The DX Code of Conduct

The key points of the DX Code of Conduct for DXpeditions are:

1. Check transmit and receive frequencies before starting.

2. Use split operation from the beginning.

3. Maintain a rhythm of regular transmissions – no long silences.

4. Do not use excessive speed on CW. Slow down when signals are weak.

5. Reduce speed further on CW to pass information to the pileup.

6. Identify with call sign at least every minute.

7. Issue calling instructions after every QSO, for example 'UP5 EU' on CW or 'NA UP 5-10' on SSB.

8. Minimize pile-up width: suggest max 5-8 kHz CW and 10-15 kHz SSB.

9. Move receive frequency in a generally regular pattern.

10. Repeat corrected call signs so everyone is confident of being correctly logged.

11. Work and log dupes; it's quicker.

12. Don't leave the pile-up hanging. Keep the callers informed about QRT/QSY, etc.

13. Maintain a moderate, but 'in-charge' attitude.

The full DX Code of Conduct can be found at www.dx-code.org along with further descriptions of the points above.

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SUBJECT	**Operation at 5MHz and WRC15**		
Society	**RSGB**	**Country:**	**UK**
Committee:	**C4**	**Paper number:**	**VIE13/C4/08**
Contact:	**Ian Greenshields, G4FSU**	**e-mail:**	**ian.greenshields@gmail.com**

Introduction

Agenda item 1.4 at WRC 2015 addresses the consideration of an allocation to the amateur service within the 5.25 – 5.45MHz spectrum. Although several countries already allow operation at 5MHz, considerable work will be needed by member societies in persuading their administrations to support this effort.

Background

Amateur radio Interest and activity on frequencies around 5MHz has now been in operation for over 10 years with many countries now having some form of allocation around 5MHz.

In particular, NVIS (Near Vertical Incidence Skywave) propagation at these frequencies provide well-documented properties for reliable communications over distances up to about 500km, making the band very desirable for emergency communications. Propagation around 5MHz is also significantly different to the two adjacent amateur bands at 3.5MHz and 7MHz and thus fills an important gap in the amateur service allocation.

Activity in the UK on 5MHz over the last 10 years has reliably proven that amateur stations can co-exist with other services, and has also shown that cooperation and interoperability between services is possible. In the latter case, UK amateurs have been permitted to contact military cadet stations also operating on the same frequencies and this has provided valuable experience of operating inter-service nets.

As part of the original experimental access to the 5MHz allocation in the UK, much data has been collected to demonstrate the effectiveness of low power and simple antennas to provide reliable communications within the country.

As more countries gain access to frequencies around 5MHz, it is important that operating standards are maintained to demonstrate our ability to coexist with primary users. In particular, this means paying more attention to potential interference issues and careful observance of frequency allocations that may be somewhat different to the existing amateur bands. In particular, no form of contest activity should take place in the 5MHz allocation.

Recommendation

1. That member societies actively engage with their administrations to support Agenda Item 1.4 within CEPT and other regulatory organisations.

2. That, in countries where 5MHz operation is permitted, member societies promote activities and operating standards consistent with supporting Agenda Item 1.4. at WRC15. In particular, promotion of emergency communications and reliability of NVIS propagation as well as examples of compatibility between the amateur and other radio services is to be encouraged.

3. That contests, or any other form of high-usage activity, is discouraged in the 5MHz allocations.

Annex 1. UK 5MHz Allocation as of January 2013

The table below shows the 5MHz frequency allocations to UK amateurs who have applied for access to the band via a Notice of Variation to the main licence. Power is restricted to 100 Watts or 200W eirp and maximum antenna height is 20 metres.

Lower Limit kHz	Upper Limit kHz	Notes on Current Usage
5258.5	5264.0	CW activity. 5258.5kHz international use
5276.0	5284.0	USB dial frequency 5278.5kHz international use. Emergency Comms. CoA
5288.5	5292.0	Experimental beacons on 5290kHz
5298.0	5307.0	All modes, highest USB dial frequency 5304kHz
5313.0	5323.0	All modes, highest USB dial frequency 5320kHz
5333.0	5338.0	Highest USB dial frequency 5335kHz
5354.0	5358.0	Highest USB dial frequency 5355kHz
5362.0	5374.5	Digital modes activity. Highest USB dial frequency 5371.5kHz. International use
5378.0	5382.0	Highest USB dial frequency 5379kHz
5395.0	5401.5	Highest USB dial frequency 5398.5kHz international use
5403.5	5406.5	USB dial frequency 5403.5kHz international use

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SUBJECT	**Contest-free 3rd full weekend in October for recruitment of young radio amateurs via Jamboree-on-the-Air (JOTA)**		
Society	**NRRL**	**Country:**	**Norway**
Committee:	**C4**	**Paper number:**	**VIE13/C4/09**
Contact:	**Tom V. Segalstad, LA4LN**	**e-mail:**	**LA4LN@ARRL.NET**

Background

For a number of years we have at IARU Region 1 Conferences and Interim Meetings discussed the possibility of having at least one contest-free weekend on the HF bands. Contests are of course good to show activity and that we use the amateur radio bands ("use them or lose them"). But with 8 - 9 contests per weekend, and the number of contests increasing, we hear from our society members an increasing groan (see an example in Appendix 1) that it has become ever so difficult to find a clear spot on the bands for that pleasant and relaxing non-contest contact during the weekends on the 5 "classic" bands + 160 m – unless they use the contest-free, narrow bands of 30, 17, and 12 meters, with limited propagation.

Jamboree-on-the-Air (JOTA) was established in 1958 by Leslie "Les" Mitchell, G3BHK. A *World Scout Jamboree* is a camp where scouts from all over the world get together to learn about the world brotherhood of scouting. But it is costly to travel to a World Jamboree, and all the millions of scouts cannot be present at one and the same place. Les realized that many scout leaders were also radio amateurs. And with the help of amateur radio, it would be possible to arrange a *Jamboree-on-the-Air*.

JOTA has proven to be an enormous success over the years, with thousands of amateur radio stations taking part, bringing together **about half a million of boy scouts and girls scouts and guides from all over the world every year**. Many authorities allow the scouts to operate the radio under the presence and guidance of the licensed radio amateur.
Amateur radio is also used from national jamborees, smaller scout camps, scout courses, and other scouting events. Some national scout organizations have their own committees for amateur radio and "radio scouting", also organizing amateur radio courses for scouts.
The Norwegian Boy Scout Association established their first "Amateur Radio Committee" in the late 1960s (with LA5CH as its first chairman). **Since that time more than 500 scouts in Norway have become radio amateurs through this radio scouting program, built around the JOTA event. This constitutes *more than 10%* of the Norwegian radio amateur census!**

There is no exaggeration to say that ***the JOTA scouting event with amateur radio is the most effective way to recruit young people to amateur radio***. The **55th JOTA** was held in October 2012.

Recruitment of young radio amateurs

IARU Region 1 has during the last years made strategies for recruitment of young radio amateurs. Without active radio amateurs on the amateur radio bands, we may lose our bands! Hence we need to show the pleasure and fun of amateur radio to youngsters, in order to recruit them.

If IARU would assign just one weekend every year towards such recruitment, the 3rd full weekend of October would be ideal, because there already is an annual activity there, JOTA, successfully presenting amateur radio to young people for the last 55 years.

Considerations

The 3rd full weekend of October was selected for JOTA from 1959, *because there were no major contests during that weekend*. The presence of contests will of course limit the activities for the scouts, if the scouts should be presented for trying phone, CW, and digital modes.
How many contests are there per year? In 2012 the [ARRL] Contest Corral database tracks 440 different contests. The online WA7BNM and SM3CER contest calendars have even more contests. Of the 440 tracked in Contests Corral, 326 (74%) are HF-only and 35 (8%) only use the VHF+ bands. 73% feature CW – the most popular contest mode by nearly 2-to-1 over Phone (46%) and Digital (37%). Even though there are 22 more (new) contests this year, the proportion of CW:Phone:Digital remains almost exactly the same. [From ZS4BS "HF Happenings" No. 530, 9 Nov. 2012].

With 52 weekends per year, this gives us an average of 8 - 9 contests per weekend. There are now **15 different contest** on the 3rd full weekend of October (see Appendix 2).
It should here be emphasized that DARC has been extremely cooperative in limiting the band segments for their WAG Contest operation the 3rd weekend of October. But we all know that IARU bandplan segments and contest-regulated segments are not obeyed during the heat of contests.
Contests are absolutely not in the interest of scouts in JOTA, and contests will therefore be counter-productive in trying to catch their interest for amateur radio. A spin-off from JOTA could be that amateur radio societies ask the scouts for help other times during field-day operations (logistics, tower building, logging help, and so on) to further catch their interest in radio and technology.
Scouts also have a focus on emergency preparedness. It could be fruitful if collaboration was sought between scouts and radio amateurs for emergency preparedness.

Existing recommendations

IARU Region 1 made the following recommendation at the Cavtat Conference in 2008, based on a paper from NRRL:

CT08_C3_Rec 24: (Paper CT08_C3_39)
In recognizing the importance of the JOTA for radio amateur recruiting, it is recommended that Member Societies encourage radio amateurs to assist boy scouts and girl guides to participate in the annual JOTA the third full weekend of October each year, organized by the World Organization of the Scout Movement (WOSM) and to use this opportunity to present amateur radio recruiting possibilities to the scouts/guides.

It has also been discussed in IARU R1 that existing contests should be joined and coordinated, in order to reduce the number of contests. This has successfully been done in the Nordic Countries, e.g., the SAC (Scandinavian Activity Contest), the NRAU-Baltic Contest, and the NAC (Nordic Activity Contest for VHF/UHF/SHF).
The HF Managers' Handbook (Chapter 12; Contest rules and regulations) specifies rules for the establishment of new HF contests within the Region, to be enforced by the Contest Subgroup. This subgroup has been discontinued; although it is assumed that new contests pop up without applying.

What to do?

It must be emphasized that very few of the contests now arranged the 3rd full weekend of October are arranged by IARU member societies. Therefore a resolution to keep the 3rd full weekend of October free of contests, *if accepted by all the IARU regions*, must be presented by IARU to both member societies and to other contest organizers.
NRRL wants to *propose* the following recommendation, which can be discussed or modified at the Interim Meeting:

Recommendation

In recognizing the importance of the JOTA for radio amateur recruiting, it is recommended that Member Societies and other amateur radio contest organizers seek to move contests away from the 3rd full weekend of October, in order to leave this weekend contest-free. The purpose of this is to encourage radio amateurs to assist boy scouts and girl guides to participate in the annual JOTA the third full weekend of October each year, organized by the World Organization of the Scout Movement (WOSM), and to use this opportunity to present the full width of amateur radio to the boy scouts and girl guides, as recruiting possibilities to the scouts/guides.

If a recommendation is agreed on at the Interim Meeting, it is further proposed that the recommendation be submitted to C3 at the next IARU Region 1 Conference, and to forward the recommendation to the other IARU regions.

Appendix 1:

OV6A
10-26-2009, 08:00 PM
The time has come to end the never-ending series of contests. They offer no real value and roughly every weekend the airwaves are saturated with high power over modulated signals. Contesters have no respect for the weekend operator wanting to carry on normal QSO with friends or family. Try to work digital modes during a contest is virtually impossible due to contest operators disregarding band frequency allotments. Time to rethink about having so many contests.

I agree 100 procent. The recent CQ WW SSB contest was just a madhouse! Hams shouting all over the bands (fortunately not on 17 meter) ignoring the unwritten ham spirit: Listen first, then transmit. I cannot see any challenge in this contest busines, even if I agree that there are many aspects in our hobby. For me the main idear is to meet friends over the radio, establishing new friendships, and to learn much more about our wonderful world.

Time has come where it is necessary to limit the still increasing number of contests. At least to limit the number of hours they are "on air". 2x24 hours ist just far too much.

5P8ZY
Jorgen
From: http://forums.qrz.com/archive/index.php/t-223035.html

Appendix 2:

International contests the 3rd full weekend of October 2012
JARTS WW RTTY Contest (full weekend)
LZ Open 80 m Sprint Contest CW (Sat 00 - 04 UTC)
10-10 International Fall QSO Party CW (full weekend)
Youth starts all modes (Sat 08 - 14 UTC)
SYLRA Contest CW RTTY SSB (Sat 10 UTC - Sun 10 UTC)
Iowa QSO Party CW DIGI SSB (Sat 14 - 23 UTC)
New York QSO Party CW DIGI SSB (Sat 14 UTC - Sun 02 UTC)
Polish WW BPSK63 Contest (Sat 14 UTC - Sun 14 UTC)
Stew Perry Topband Distance Challenge "Warm-up" CW (Sat 15 UTC - Sun 15 UTC)
Worked All Germany Contest CW SSB (Sat 1500 UTC - Sun 1459 UTC)
W/VE Islands QSO Party CW DIGI PHONE (Sat 1600 UTC - Sun 2359 UTC)
Feld-Hell Club Sprint (Sat 20 - 22 UTC)
Asia-Pacific Sprint Contest (Sun 00 - 02 UTC)
SP CW Contest (Sun 1600 - 1659 UTC)
Illinois QSO Party CW DIGI SSB (Sun 17 UTC - Mon 01 UTC)

From: http://www.sk3bg.se/contest/c2012oct.htm

International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**CONTEST RULES – Definition of a contest**		
Society	**REF**	**Country:**	**France**
Committee:	**C4**	**Paper number:**	**VIE13/C4/10**
Contact:	**Philippe Martin, F6ETI** **Betty Manin, F6IOC**	**e-mail:**	f6eti@wanadoo.fr betty.manin@orange.fr

BACK GROUND

According to the Ham Spirit, a contest is a competition between radio amateurs which takes place exclusively on the bands allocated to amateurs.
This is implicit and is not written in the contest rules which have been established several decades ago.

Since then, new technologies have appeared which allow to easily exchange through other means than radio amateur.
This can be seen in the traffic on some chats during or after the contests.
IARU R1 contests rules have remained quite unchanged since they were written. However, some societies have already clarified this point in their own contest rules :
“Use of non amateur means (telephone or internet for example) in order to request one or more contacts during the contest period is not compatible with the spirit and the letter of these rules.”

“So is the use selfspotting on the packet or on any other network.”
“A complete exchange must be logged for each valid QSO.”

PROPOSAL

In order to take into account evolution of technologies together with the spirit of amateur radio contests, it would be useful to add the definition of a contest.

Definition of a Contest

A contest is a competition between radio amateurs that takes place exclusively on the bands allocated to amateurs. During the contest period, only amateur radio means are allowed.

International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**Worldwide alignment of the 160 meter band**		
Society	**IARU-R1**	**Country:**	**IARU-R1**
Committee:	**C4**	**Paper number:**	**VIE13/C4/11**
Contact:	**Hans Blondeel Timmerman, PB2T**	**e-mail:**	**PB2T@me.com**

Worldwide alignment of the 160 meter band

1 Executive summary

TBD

2 Introduction

The IARU Administrative Council, at its 2012 meeting in Vietnam, decided that a worldwide alignment of the 160 meter band should be high on our priority list. This document is meant for discussion and improvement at the 2013 interim meeting for Region 1 HF managers.

3 Current situation

Critical to our success is to determine the “as-is” situation. The current situation is reflected in the ITU Radio Regulations, Regional Allocation Tables like the European Common allocation Table and National Allocation Tables. Annex A (160m-allocations in IARU R1 rev_16 jan 2013) sums up the situation for countries within Region 1.

3.1 Radio Regulations 2012

Allocation to services

Region 1	Region 2	Region 3
1 635-1 800 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92 5.96 **1 800-1 810** RADIOLOCATION 5.93	5.90 **1 705-1 800** FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION **1 800-1 850** AMATEUR	5.91 **1 800-2 000** AMATEUR FIXED MOBILE except aeronautical mobile RADIONAVIGATION Radiolocation
1 810-1 850 AMATEUR 5.98 5.99 5.100 5.101		
1 850-2 000 FIXED MOBILE except aeronautical mobile	**1 850-2 000** AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION RADIONAVIGATION	
5.92 5.96 5.103	5.102	5.97

5.92 Some countries of Region 1 use radiodetermination systems in the bands 1 606.5-1 625 kHz, 1 635-1 800 kHz, 1 850-2 160 kHz, 2 194-2 300 kHz, 2 502-2 850 kHz and 3 500-3 800 kHz, subject to agreement obtained under No. 9.21. The radiated mean power of these stations shall not exceed 50 W.

5.93 *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Tajikistan, Chad, Turkmenistan and Ukraine, the bands 1 625-1 635 kHz, 1 800-1 810 kHz and 2 160-2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.96 In Germany, Armenia, Austria, Azerbaijan, Belarus, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Ireland, Iceland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W. (WRC-03)

5.97 In Region 3, the Loran system operates either on 1 850 kHz or 1 950 kHz, the bands occupied being 1 825-1 875 kHz and 1 925-1 975 kHz respectively. Other services to which the band 1 800-2 000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran system operating on 1 850 kHz or 1 950 kHz.

5.98 *Alternative allocation*: in Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey and Ukraine, the band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.99 *Additional allocation:* in Saudi Arabia, Austria, Iraq, Libya, Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1 810-1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.100 In Region 1, the authorization to use the band 1 810-1 830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. 5.98 and 5.99 to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. 5.98 and 5.99.

5.102 *Alternative allocation:* in Bolivia, Chile, Mexico, Paraguay, Peru and Uruguay, the band 1 850-2 000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis. (WRC-07)

5.103 In Region 1, in making assignments to stations in the fixed and mobile services in the bands 1 850-2 045 kHz, 2 194-2 498 kHz, 2 502-2 625 kHz and 2 650-2 850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.

3.2 European Allocation Table

Freq Range	RR	ECA	EU harmoni-sation	Application	Notes
1635-1800 kHz	FX, LM, MM 5.90 5.92 5.96	FX, LM, MM 5.90 5.96		Defence systems	
			ERC/REC 70-03	Inductive applications	Within the band 148.5 kHz – 30 MHz
				Maritime	Frequency Assignment plan GE85
				Radio Determination Applications	
1800 - 1810 kHz	RL 5.93	RL 5.93	ERC/REC 70-03	Inductive applications	Within the band 148.5 kHz – 30 MHz
				Radio Determination Applications	
1810 – 1850 kHz	AM 5.00 5.98 5.99	AM 5.98 5.100 EU2		Amateur	
			ERC/REC 70-03	Inductive applications	Within the band 148.5 kHz – 30 MHz
1850 - 2000 kHz	FX Meam 5.103 5.92 5.96	FX Meam 5.96 5.103		Amateur	
				Defence Systems	
			ERC/REC 70-03	Inductive applications	Within the band 148.5 kHz – 30 MHz
				Maritime	
				Radio Determination Applications	

EU2 Civil Military sharing

4 Justification

Some thoughts. This paragraph needs to be worked on

- [world wide alignment]
- [Look at the use of 1 800 – 1 810 kHz]
- [Look at the use of 1 850 – 2 000 kHz]

5 Desired situation

The desired situation will be reflected in the ITU Radio Regulations. [WRC-2015 to decide on an Agenda Item for WRC-2018]. Note that there will be several options to satisfy our requirements.

5.1 Option 1

Allocation to services

Region 1	Region 2	Region 3
1 800-1 850 AMATEUR	**1 800-1 850** AMATEUR	**1 800-1 850** AMATEUR FIXED MOBILE except aeronautical mobile RADIONAVIGATION Radiolocation
1 850-2 000 AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION RADIONAVIGATION		

5.2 Other options

TBD

6 Transition from current to desired situation

6.1 National allocations

Member Societies are requested to approach their national administration in order to

- Align with current Radio Regulations and ensure a primary allocation to the amateur service in the band 1 810 – 1 850 kHz;
- Relax existing power limitations;
- Remove country names from footnote 5.98. In Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey and Ukraine, the band 1 810 - 1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis;
- Remove country names from footnote 5.99. in Saudi Arabia, Austria, Iraq, Libya, Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1 810-1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis;
- Work on amateur privileges in the segment 1 850 – 2 000 kHz, with footnote 5.96 in mind. In Germany, Armenia, Austria, Azerbaijan, Belarus, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Ireland, Iceland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W, avoiding the power limitation.

6.2 CEPT

- Work on a ECC Recommendation (through WGFM)
- Propose a change to the European Allocation Table

6.3 ATU

TBD

6.4 ASMG

no actions are foreseen

6.5 RCC

no actions are foreseen

6.6 Proposal of AI for WRC-18

TBD. A proposal for WRC Agenda Items must come from an administration.

7 Required actions

7.1 IARU Region 1

7.1.1 IARU Region 1 EC/ERC

- Propose an ECC Recommendation to WGFM
- Propose a change to the European Allocation Table

7.1.2 IARU Region 1 HF Manager

Update 160m-allocations in IARU R1 rev_16 jan 2013

7.1.3 IARU Region 1 Monitoring System

[Monitoring campaign TBD]

7.1.4 IARU Region 1 Member Societies

- Check 160m-allocations in IARU R1 rev_16 jan 2013
- Report discrepancies and changes to DK4VW

7.2 IARU IS

Monitor actions taken by Region 1 and provide comments where appropriate and ensure support when necessary

7.3 IARU Region 2

- Monitor actions taken by Region 1 and provide comments where appropriate and ensure support if necessary
- Work on the removal of country names from footnote 5.102. In Bolivia, Chile, Mexico, Paraguay, Peru and Uruguay, the band 1 850-2 000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis.

7.4 IARU Region 3

Monitor actions taken by Region 1 and provide comments where appropriate and ensure support if necessary

ANNEX A

160 Metre Band in IARU Region 1

rev 16 jan 2013 pse changes or additions to dk4vw@darc.de

	Frequencies	National Listing	CEPT T/R 61-01	Usage	Modes	Remarks
Andorra	1810-1850					General licence
URA	1850-2000					**ONLY** during international contests
Austria	1810-1830		100 Watts	Secondary	A1A, A1B	CEPT+CEPT Novice Lic.
OEVSV	1830-1840		200 Watts	Secondary	A1A, A1B	CEPT
	1830-1840		100 Watts	Secondary	A1A, A1B	CEPT Novice Licence
	1840-1850		200 Watts	Secondary	A1A, A1B, J3E	CEPT
	1840-1850		100 Watts	Secondary	A1A, A1B, J3E	CEPT Novice Licence
	1850-1950		100 Watts	Secondary	A1A, A1B, J3E	CEPT + CEPT Novice Lic.
Bahrain	1810-1850		1500 Watts	Primary		
ARAB	1850-2000		1500 Watts	Secondary		
Belarus	1810-1840	10 Watts	N/A		CW	1 kW may be used
BFRR	1840-1930	10 Watts	N/A		SSB	for contests with special permission
Belgium	1810-1850		150 Watts*			* 1kW when you inform the
UBA	1850-1875		10 Watts			B.I.P.T. of using high power (up to 1kW) on HF.
Bosnia	1810-1850			Primary		
Hercegovina	1850-2000			Primary		
ARABiH						
Bulgaria	1810-1830		100 Watts	Secondary	CW, SSB	
BFRA	1830-1850		100 Watts	Primary	CW, SSB	
Croatia	1810-1900		1000 Watts	Secondary	CW, SSB	
HRS						
Cyprus	1810-1850		400 Watts	Primary		Available on the basis
CARS	1850-2000		400 Watts	Secondary		of non-interference to other services
Czech Republic	1810-1850		750 Watts*	Primary		*During international
CRC						contests Class A operators may use 1.5 kW out in urban and 3 kw out in rural areas.
	1830-2000	10 Watts				Novice Licence
	1850-1890		75 Watts			
	1890-2000		10 Watts			
Denmark	1810-1850		1000 Watts	Primary		
EDR	1850-1900		10 Watts	Secondary		

	1930-2000		10 Watts	Secondary		
Estonia	1810-1850		1000 Watts	Primary		
	1850-1955		1000 Watts	Secondary		
Faroe Islands	1810-1850		1000 Watts	Primary		As part of Danish adm.
FRA	1850-1900		10 Watts	Secondary		
	1930-2000		10 Watts	Secondary		
Finland	1810-1850		1500 Watts*	Primary		* Basic Class 120 Watts
SRAL	1850-1855		15 Watts	Primary		Avoids Mariehamn Radio
	1861-1906		15 Watts	Primary		allocations on
	1912-2000		15 Watts	Primary		1858 kHz and 1909 kHz
France	1810-1830		500 Watts	Primary		
REF	1830-1850		500 Watts	Primary		
Germany	1810-1850		750 Watts	Primary		
DARC	1850-1890		75 Watts	Secondary		**No Contests**
	1890-2000		10 Watts	Secondary		**No Contests**
Georgia	1810-1838			Primary	CW	
NARG	1838-1840			Primary	Digi (no Packet), CW	
	1840-1850			Primary	Digi (no Packet), CW, SSB	
	1850-2000			Secondary	CW, SSB	
	1810-2000		1000 Watts		Class "E" + Class "A"	
	1810-2000		500 Watts		Class "B"	
	1810-2000		100 Watts		Class "C"	
Greece	1810-1850		500 Watts	Primary		
RAAG						
Hungary	1810-1838		1500 Watts	Primary	200 Hz BW – CW only	
MRASZ	1810-1838	10 Watts		Primary	200 Hz BW – CW only	Novice Licence
	1838-1840		1500 Watts	Primary	500 Hz BW – CW & digital	
	1838-1840	10 Watts		Primary	500 Hz BW – CW & digital	Novice Licence
	1840-1843		1500 Watts	Primary	2.7 kHz – All modes	
	1840-1843	10 Watts		Primary	2.7 kHz – All modes	Novice Licence
	1843-1850		1500 Watts	Primary	2.7 kHz – CW & SSB	
	1843-1850	10 Watts		Primary	2.7 kHz – CW & SSB	Novice Licence
	1850-2000		10 Watts	Secondary	10 Watts – CW & SSB	
Iceland	1810-1850		1000 Watts	Primary		
IRA	1900-2000		10 Watts	Secondary		
Ireland	1810-1850		400 Watts	Primary	All modes except SSTV	
IRTS	1850-2000		10 Watts	Primary	All modes except SSTV	
Israel	1810-1850		1500 Wartts	Primary	CW, SSB, Digital, Image	Advanced class
IARC	1810-1850		250 Watts	Primary	CW, SSB, Digital, Image	General class
	1810-2000		40 Watts	Secondary	CW, SSB, RTTY	Advanced & General class on N.I.B

Jordan **RJARS**	1810-2000					
Kuwait **KARS**	1810-1850		1500 Watts			
Latvia **LRAL**	1810-1850 1850-2000		1000 Watts 10 Watts	Primary Secondary		Class A only Class A only
Lebanon **RAL**	1810-2000 1810-2000	100 W 100 W	N/A N/A			
Lithuania **LRMD**	1810-1850 1850-2000		1000 Watts 10 Watts	Primary Secondary		Class A Class A
Luxemburg **RL**	1810-1838 1838-1840 1840-1843		1000 Watts 1000 Watts 1000 Watts		CW CW, Digital Modes Digital Modes	 no packet no packet
	1843-2000 1810-1830 1830-1850 1850-2000		1000 Watts	 Secondary Primary Secondary	Phone (CW)	
Malta **MARL**	1810 - 1850 1850 – 2000		10 Watts 10 Watts	Primary Secondary		
Moldova **ARM**	1810-1840 1840-2000	10 Watts 10 Watts	N/A N/A		CW SSB	
Monaco **ARM**	1810-1850 1850-2000			Primary Secondary		
Montenegro **MARP**						
Netherlands **VERON**	1810-1850 1850-1880		400 Watts 400 Watts	Primary Secondary		
Norway **NRRL**	1810-1850 1850-2000		1000 Watts 10 Watts	Primary Secondary		
Poland **PZK**	1810-1850 1850-2000		500 Watts 10 Watts	Primary Secondary		
Portugal **REP**	1830-1850		1500 Watts	Primary		Soon to be changed to 1810 - 1850 kHz
Qatar **QARS**						
Romania **FRR**						
Russia	1810-1840	10 Watts	N/A	Secondary	CW	

SRR	1840-1843	10 Watts	N/A	Secondary	Digital, SSB	
	1843-1900	10 Watts	N/A	Secondary	CW, SSB	
	1900-2000	10 Watts	N/A	Secondary	AM, CW, SSB	
Serbia	1810-1838		300 Watts		CW	
SRS	1838-1840		300 Watts		Digimode, CW	no packet
	1840-1842		300 Watts		Digimode, Phone, CW	no packet
	1842-2000		300 Watts		Phone, CW	
Slovenia	1810-1838		300 Watts	Primary	200Hz BW,CW only	
ZRS	1838-1840		300 Watts	Primary	500Hz BW,CW,digital	
	1840-1842		300 Watts	Primary	2.7 kHz BW,CW,digital	
	1842-1850		300 Watts	Primary	2.7 kHz BW,CW,SSB	
	1850-2000		300 Watts	Secondary	2.7 kHz BW,CW,SSB	
Slovakia	1810-1850		750 Watts		in Contests 1500 Watts	
SARA	1850-2000		10 Watts			
Syria						
SSTARS	1810-1950					
Spain	1830-1850		50 W carrier	Primary	or 200 Watts PEP	
URE	1850-2000			Secondary	only during major specific contests	
South Africa	1810-1850		400 Watts	Primary		
SARL						
Sweden	1810-1850		1000 Watts			
SSA	1850-2000		10 Watts			
Turkey	1810-1840		30 Watts	Primary		SSB between only
TRAC	1840-1850		30 Watts	Secondary		1832 - 1836 kHz
UKRAINE	1810-1840			Secondary	CW	
UARL	1840-1850			Secondary	SSB, CW	
	1838-1842			Secondary	Digimodes	
	1850-1900			Secondary	SSB, CW	
	1900-2000			Secondary	SSB, CW, AM	
			10 Watts*		1st category - 1 kW by special request for contests	
			5 Watts**		2nd + 3rd + novice category	
				* 200 W expected		
				** 100 W expected		
United Kingdom	1810-1850		400 Watts	Primary		Available on the basis
RSGB	1850-2000		32 Watts	Secondary		non-interference to other services.
Zimbabwe	1810 - 1850		400 Watts PEP	Primary	All Modes	Full Licence
ZARS	1810 - 1850		10 Watts PEP	Primary	All Modes	Novice Licence

International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**WRC-15 Agenda Items**		
Society	**IARU-R1**	**Country:**	**IARU-R1**
Committee:	**C4, C5**	**Paper number:**	**VIE13/C4/12**
Contact:	**Hans Blondeel Timmerman, PB2T**	**e-mail:**	**PB2T@me.com**

WRC15 will take place in Geneva, Switzerland 2-27 November 2015, preceded by the Radiocommunication Assembly 26-30 October 2015. For the purpose of discussions on development of the IARU positions on those items and the other WRC-15 Agenda Items, the following list sets forth the agenda items that will or may impact the amateur radio service:

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)**;"

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

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 (and review the regulatory provisions on the current allocations to the fixed-satellite service with each range, taking into account the results of the ITU-R studies, in accordance with Resolutions **151 (WRC-12)** and **152 (WRC-12)**, respectively);"

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)**;"

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 - 15 500 MHz, in accordance with Resolution **652 (WRC-12)**;"

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)**,"

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)**," and

Agenda Item 10 -- "to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention."

International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**Shortwave links for Digital Communications and Voice**		
Society	**DARC**	**Country:**	**Germany**
Committee:	**C4, C5**	**Paper number:**	**VIE13/C4/14**
Contact:	**Jochen Berns, DL1YBL**	**e-mail:**	**DL1YBL@DARC.DE**

Introduction

More and more radio amateurs might close down their station due to man-made noise on HF bands.
Furthermore building of appropriate HF antennas is already difficult in urban areas today and does not allow the use of the HF bands as desired. Digital voice (DV) applications will become more popular in future. Today some local VHF or UHF repeaters are connected worldwide via Internet, if possible. Unfortunately in some areas an Internet connection is not available for several reasons.

One could evaluate whether it might be possible to use HF frequencies for links to connect local VHF or UHF repeaters. After an agreement to use HF for such links, a protocol, frequencies, principles and transfer method for Data, Voice, Video and more has then to be defined.

Background

A common standard for communication in DV or for Data links does not exist yet. Some stations worldwide are using the DSTAR Protocol, with GMSK Modulation and approximately about 6 kHz bandwidth.
It might be possible to develop software for a fading resistant modulation scheme which is comparable to SSB.

Key points and discussion

A discussion should take place whether HF links for DV are possible and desired. Frequencies, methods and transfer characteristics then have to be defined in accordance with the HF bandplan requirements. Such a discussion about this issue should take place in C4 and C5, because both committees are affected.

International Amateur Radio Union Region 1

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Committee C4 (HF Matters) Interim Meeting
20-21 April 2013
InterCity Hotel, Vienna

SUBJECT	**Proposal to avoid copy right problems for articles exchanged between IARU, Region 1, magazines.**		
Society	**EDR**	**Country:**	**Denmark**
Committee:	**C4, C5**	**Paper number:**	**VIE13/C4/13**
Contact:	**Ivan Stauning, OZ7IS**	**e-mail:**	**OZ7IS@edr.dk**

Introduction

For decades it has been said that all articles in any of the IARU, Region 1, magazines of the member societies could be copied/translated in any of the other magazines without problems and without violating copyright law.

It has been stated over and over again and hence established as a fact!
But suddenly a claim of violated copyrights arrived on the editor's desk of "OZ" – the Danish amateur radio magazine. My immediate reaction was to refer to the "well known fact" mentioned above!

But panic broke out in the editorial staff and I had to prove my contention!
In order to do so I leafed through my IARU documents and recommendations as far back as to 1978.

I found NOTHING to substantiate my claim!

Then I turned to several members of the EC and AC. They all knew about the agreement but none have so far been able to come up with a reference to a particular document/recommendation.
There seems to be no such document after all?

But we need it! We must work towards a recommendation like that "missing one".
The original problem we had in "OZ" is now solved.
To avoid any such problems in the future we have produced a document for the authors of articles send to the editors of "OZ" to sign. (See attachment.)

In order to (re)establish a recommendation that despite the normal copyright law allows us to bring the articles mentioned we propose to make an agreement between the IARU, Region 1, amateur radio societies/magazines along the following lines:

a) When planning to print a copy or translation of an article as mentioned - ask for permission from the magazine of origin.
b) Make a general recommendation stating that authors renounce their rights when their article have been published in one of the IARU, Region 1, magazines. Other member society magazines can then copy/translate the article having achieved permission (a).
c) Establish a form for all authors to sign after handing in material for the (national) editors.
   (See attachment.)
d) Make these rules clear in the leaf imprint of the (national) magazine.

ATTACHMENT.

To the editors of ”XXX”.

Statement about the material sent for publication in ”XXX”

I hereby declare that the material sent for publication in “XXX”,
_____ is not subject to third party copyright!

_____that I have permission to publish it in “NN” including download of software etc. on the “YYY” web site.

_____I accept that my article/material can be placed in any other IARU, Region 1, member magazine.

Name:
Address:
Call (if any):
Date and signature:

.....
.....

The above form is sent to the author or the translator of the above mentioned material when received by the editors and need to be returned within two weeks including a copy of any possible permission from the original author.
If more than one author is involved all authors must fill out a copy of the above form.

When publishing an article from any other IARU, Region 1, magazine the editors will have to obtain permission from the original publishing magazine.

International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia Founded 1950

Committee C4 (HF Matters) Interim Meeting
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SUBJECT	**Shortwave links for Digital Communications and Voice**		
Society	**DARC**	**Country:**	**Germany**
Committee:	**C4, C5**	**Paper number:**	**VIE13/C4/14**
Contact:	**Jochen Berns, DL1YBL**	**e-mail:**	**DL1YBL@DARC.DE**

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