International Amateur Radio Union Region 1
VHF - UHF - MW Newsletter

Edition 53
29 January 2010
Michael Kastelic, OE1MCU

SCHEDULE 2010 INTERIM MEETING IN VIENNA

Friday, 19 February 2010:

2000 - 2030 hrs: Welcome drink at the hotel

2030 - 2200 hrs: Dinner

Saturday, 20 February 2010:

0800 - 0900 hrs: Breakfast

0900 - 1200 hrs: Committee meeting

1200 - 1400 hrs: Lunch

1400 - 1800 hrs: Committee meeting

1830 - 1900 hrs: Transfer by bus

1900 - 1940 hrs: Visit at the Documentary Archive Radio Communications (International Foundation QSL Collection)

1940 – 2000 hrs: Transfer to the restaurant

2000 – 2200 hrs: Dinner

2200 – 2300 hrs: Transfer back to the hotel

Sunday, 21 February 2010:

0800 - 0900 hrs: Breakfast

0900 - 1200 hrs: Committee meeting

1200 - 1400 hrs: Lunch

Chairman Report Vienna 2010

I am glad to report about some activities that happened after Cavat. This is my preliminary report before the Sub Working Group will assemble in Vienna.

Contests still provide interesting opportunities to compare personal operating skills and equipment capabilities. The automatic IARU Contest Evaluation has been tested for one year now (iaru.oevsv.at). The software has already been improved in many ways. We now must discuss the automatic evaluation in real life and how to implement it under the contest rules. A number of very interesting proposals have been submitted to the Sub Working Group. I think it is important to allow each active operator to upload his log to the server, and that the log can be corrected electronically by the either the national VHF Manager or the Contest Manager. In addition to much faster processing, the new procedure will prevent any logs from getting lost in transit. In this way, the disappointment over a lost log after 24 sleepless hours can be avoided; all logs will be counted. On top of that, each participant will receive his score in .pdf format. I also think the time has come to consider a newcomer class in contesting to attract new contesters and thus avoid boredom.

In the last conference, the transmission of digital voice was implemented into the bandplans. As pointed out in previous newsletters, in some countries, D-Star repeaters are set up without co-ordination. This is aggravated by the fact that some of these use arbitrary set-offs and thus create interference in the satellite sub-band. Will, therefore, all VHF Managers take appropriate action to ask the repeater operators to adhere to the IARU frequency plans. Whenever a new 2m D-Star repeater is set up, existing analogue repeaters must be switched off. I do recognize the need to support further developments in the field of digital voice communication.

Unfortunately, the position of a Propagation Manager is still vacant. This is very regrettable, indeed, because I see the opportunity to close the rift between the science establishment and amateur radio. It takes the right individual to do that, and I am open to any suggestion, be it YLs or OMs. For further details, please see Newsletter #48.

I also wish to draw your attention to the beacons. Iain, G0RDI updates the IARU data bank with meticulous attention, and new beacons are added all the time. In the new 4m Band, possible national frequency allocations do not always tally with the beacons band. We currently take this into account by entering such beacons into the IARU list with a footnote. Will you please contact Iain in the early planning phase of a beacon, so that a proper frequency can be found.

The VHF Manager Handbook is still work in progress, and, with the help of my team, updates are being made again and again. For the current version, please refer to the IARU homepage.   Further improvements and a completely new satellite chapter are planned for 2010.

Please use to the handbook as often as possible and mail me any suggestions you might think of. The idea is to provide members with a reference compendium and a guideline.

The IARU Homepage (www.iaru-r1.org) can be used to provide information and to publish interesting reports. Please come forward with your contributions for both the homepage and the VHF Manager Handbook.

With respect to the 24 GHz band, some activities have been noted, including a QUESTIONNAIRE ON AUTOMOTIVE RADAR SAFETY APPLICATIONS by Murry, G6JYB. The DGPS application in the Netherlands has also been noted. Some topics will be discussed in Vienna, and we will get first-hand information about the WRC 2011.

Looking back to my last Chairman Report, when I set the goal to support activities on higher bands, I still see opportunities in this field, both for newcomers and oldtimers. This approach must be underpinned by IARU, so that member societies can put the respective ideas into practice. Will the VHF managers, please step forward and present their ideas.

Michael Kastelic, OE1MCU

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Agenda

1. Opening by the chairman

   ### 1.1. Check on documentation

2. Preparing the meeting
   2.1.   Introduction of delegates (proxies shall be mentioned explicitely)
   2.2.   Setting up ad hoc WG's (if required)
   2.3.   Terms of reference

3. CAVTAT 2008
   3.1.   Report of the DAVOS 2008 meeting
   3.2.   Action points

4. Report from the chairman
   4.1.   List of standing recommendation (C1)

5. Report from the coordinators
   5.1.   Allocations coordinator
   5.2.   Records coordinator
   5.3.   Beacon coordinator
   5.4.   Satellite coordinator

6. Frequency allocations/international bodies

   •   ITU Radiocommunication Sector (ITU-R) Overview (K1ZZ)
   •   Threatening Developments at 2300-2400 MHz (B01)

7. Operational matters   08

8. Technical Recommendations   12

9. Bandplanning   02; 03; 04; 05; 06; 07; 19; 20; 21

10. Contests   09; 10; 11; 13; 14; 15; 16 ;17;18;
                                22; 23; 24; 25; 26; 27

11. Any other matter (Please inform the meeting secretary about the items you wish to discuss under this heading before the start of the final C5 meeting)

INTERNATIONAL AMATEUR RADIO UNION

1. Administrative Council
2. Christchurch, New Zealand

17-19 October 2009

Agenda Reference: 7.2.1
Document: AC09-7.2.1-1
Date: 10 September 2009

Source: David Sumner, K1ZZ

ITU Radiocommunication Sector (ITU-R)
Overview

As noted in Document AC09-7.1-1, the ITU Radiocommunication Sector (ITU-R) is very important to us.

The Director of ITU-R is Valery Timofeev of Russia. He is currently serving his second term and is not eligible for re-election. A new Director will be elected at the 2010 Plenipotentiary Conference. This election is likely to be the item of the greatest interest to the IARU at the Plenipot.

The Radiocommunication Advisory Group (RAG) generally meets annually and provides advice to the Director (whether he wants it or not). The IARU participates in the RAG most of the time. While an issue of importance to us does arise occasionally, our attendance is not normally essential but is very helpful in causing the IARU to be regarded as an "insider."

The Radio Regulations Board (RRB) is a part-time body of 12 experts elected at the Plenipot. The Board's responsibilities do not typically concern us, as they most frequently involve resolving conflicts between administrations regarding frequency assignments. Currently there are two radio amateurs on the RRB: Bob Jones, VE7RWJ and Julie Zoller, KJ4EMJ. Incidentally, Bob's service on the RRB does not preclude him from serving the IARU in a consulting capacity.

World Radiocommunication Conferences (WRCs) fall within the purview of ITU-R. Another meeting of great importance is the Radiocommunication Assembly (RA), generally held immediately prior to a WRC and in the same location. The work of the ITU-R Study Groups (SGs) is conducted within cycles that are delineated by the RAs. The RA has the authority to create, redefine and even to abolish SGs. Working Parties (WPs) are established by each SG to organize its work. An effort is made to group similar services or technologies in the same WP, and also to balance the workload between the WPs. In addition to their WRC preparatory function, described below, the WPs prepare Reports and Recommendations in response to Questions assigned to their SG by the RA. The process is contribution-driven; if there is no

activity in response to a Question over two cycles, the Question will be deleted by the next RA.

WRC preparations within ITU-R generally follow this pattern:

First Conference Preparatory Meeting (CPM-1) for next WRC, held immediately following the previous WRC. CPM-1 develops the work plan for WRC preparation by the Working Parties and the organization of the chapters of the CPM Report that will provide the technical basis for the consideration of agenda items at the WRC.

WP meetings to prepare draft text for the assigned sections of the CPM Report. Each WP will meet approximately twice a year while it is working on CPM Report text. CPM-1 identifies a "responsible group" (typically but not exclusively a WP) for each agenda item or sub-item and also identifies "concerned groups" whose interests may stand to be affected and from whom input should be invited. Sometimes the work on an issue overlaps more than one WP to such an extent that a Joint Task Group may be set up to deal with the specific issue. Work also may be progressed by email Correspondence Groups between in-person meetings

The IARU is fortunate to have, in addition to its officers, regional executive committee members and International Secretariat staff, a team of volunteers who are well qualified to represent the IARU at WP and other ITU meetings.

Appropriate regulatory/procedural studies on relevant agenda items are carried out by a Special Committee on Regulatory/Procedural matters (SC) on the basis of proposals from the membership of ITU and the relevant ITU-R Study Groups.

The "real" Conference Preparatory Meeting occurs approximately eight months prior to the WRC. About 1,000 delegates spend two weeks haggling over every comma in a 500+ page draft report. For a WRC proposal to stand a reasonable chance of adoption, it is necessary (but not sufficient) for the proposal to be one of the options identified in the CPM Report. The options in the CPM Report are not proposals in and of themselves, and they do not become proposals until an administration or regional telecommunications organization (RTO) (on behalf of a group of administrations) submits them as proposals for the WRC.

Speaking of RTOs, each one holds WRC preparatory meetings of its own with the objective of developing regional proposals and positions on the proposals of others. These are conducted outside the ITU structure but sometimes with ITU involvement if the RTO lacks the resources to conduct the preparations entirely on its own.

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INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B01
Subject	Threatening Developments at 2300-2400 MHz
Society	Radio Society of Great Britain
Contact	Murray Niman G6JYB, (Microwave Manager)
Status	Important

Background

New developments are starting to occur in Europe in the 2300-2400MHz band. This
raises concerns in a band that supports some of the widest technical variety of
amateur activity including narrowband, data, ATV, EME etc. This paper expands on
an article in IARU-R1 VHF Newsletter-52.

Detail
At WRC-07 a major item that was agreed for the ITU Radio Regulations, was Article
5, footnote 5.384A:

'The bands, or portions of the bands, 1710–1885MHz, 2300–2400MHz and
2500–2690MHz, are identified for use by administrations wishing to implement
International Mobile Telecommunications (IMT) in accordance with Resolution
223 (Rev. WRC-07).'

In Europe the expansion of IMT will be supplemented by:-

790 – 862 MHz   Released in Europe from Digital TV Switchover
3400 – 3600 MHz   To become Primary Mobile Allocation on 17-Nov-2010 in
80 countries

The 2300-2400MHz band has Primary status for the Mobile Service in all three ITU
Regions. Fortunately in Europe it has significant government and other existing uses,
so it was originally not made available for IMT. However as it lies in the spectrum
'sweet spot' it is widely targeted elsewhere around the world by the mobile
communications industry.

Recent Developments

In the past year some recent developments have included:-

•   In Ireland (where 2500-2690 MHz was not available) Comreg their regulator has
    instead proposed a unilateral release of the 2300-2400MHz band (via
    Consultation 09/49). This prompted strong responses from IRTS and the UK

Microwave Group, who both lobbied to protect the 2300-2330MHz range in particular.

- The European Telecommunications Standards Institute, ETSI, has its group on Broadband Radio Access Networks ('BRAN') currently drafting a System Reference Document for broadband wireless systems in the frequency range 2300-2400MHz, due for release in the first half of 2010.

- The 3rd Generation Partnership Project (3GPP) is developing standards for UMTS2300.

Recommendations

It is likely that continuing pressure from commercial interests may lead to further erosion of our position in the band. We also have the disadvantage of Secondary status. Therefore:-

- It is clear that both Societies and IARU need to monitor developments in this band lest this valuable allocation becomes even more problematic than at present. Societies should provide timely updates to IARU VHF and External Relations Committees

- Where opportune and faced with losses in 2300-2400MHz, to request that substitute spectrum at 3400-3410 be made available in line with European Allocation footnote EU17. This was a tactic used in the Comreg consultation and has the advantage that the EU footnotes can give us increased priority

- IARU to consider how ECA Table footnotes can be added/modified to protect this band (particularly around 2320MHz)

Reminder
Most focus in Europe continues to be on 3400-3600MHz. This currently is a Secondary allocation for the Mobile Service, but Societies are reminded that this will become a Primary one on 17-November-2010. Fortunately for the Amateur Service, military usage and Footnote EU17 provide cover for our European allocation in 3400-3410MHz. However it is important that this allocation be requested and implemented widely at a national level

Supplementary Info

a) Documents on ComReg0949 (Consultation), 0976s (Submissions) and 0976(Statement) may be found on the Comreg website http://www.comreg.ie/

b) Footnotes that support Amateur Activities in the European Allocation Table are:-

EU9   In a growing number of CEPT countries, parts of the band 70.0-70.5 MHz is also allocated to the Amateur service on a secondary basis

EU17   In the sub-bands 3400-3410MHz, 5660-5670MHz, 10.36-10.37GHz, 10.45-10.46GHz 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.

EU23   In the sub-bands 5660-5670 MHz (earth to space), 5830-5850 MHz (space to earth) and 10.45-10.50 GHz the amateur-satellite service additionally operates on a secondary and non interference basis to other services. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these allocations in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.

EU35   In Europe the band 75.5-76 GHz is also allocated to the Amateur and Amateur Satellite services.

Source: "THE EUROPEAN TABLE OF FREQUENCY ALLOCATIONS AND UTILISATIONS",
ERC Report 25, http://www,ero.dk/

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B02
Subject	PROPOSED CHANGE TO THE 50MHz BEACON SUB-BAND
Society	Radio Society of Great Britain
Contact	David Butler G4ASR
Status	Proposal

BACKGROUND

At the IARU Region 1 Conference, Cavtat, 2008 the French Society REF introduced
paper CT08_C5_40: Narrow frequency band on the 145MHz band for an automatic
reporting beacon network (WSPR).

The meeting was comfortable with the recommendation in the paper but the
suggestion was made
that it might be helpful to assign frequencies on 50MHz and 70MHz for similar
purposes.

The RSGB VHF Manager G4ASR reported back on his investigations into suitable
frequencies and recommended the use of 50.400MHz not only for WSPR but as a
possible precursor to a later step to move the beacon band up to that area of the
50MHz band.

The recommendation was carried unanimously and the RSGB (G4ASR) was
requested to prepare a draft paper for the Interim Meeting, Vienna, 2010 regarding a
revised beacon band around 50.400MHz.

CURRENT SITUATION

The 50MHz band plan shows that Telegraphy (cw) is allocated 50.000 – 50.100MHz.

However the sub-band 50.000 - 50.080MHz is currently allocated to propagation
beacons.

This only leaves 20kHz for exclusive cw usage.

The 50MHz band within IARU Region 1 is now very popular and it will prove
advantageous to move the current beacon sub-band higher in frequency to provide
further additional bandwidth for cw usage.

PROPOSAL

That the 50MHz beacon sub-band within IARU Region-1 be moved to 50.400 – 50.500MHz.

That the sub-band 50.000 – 50.100MHz be allocated for Telegraphy (Exclusive) usage.

NOTE

Other IARU regions may need to be consulted but it is useful to note that the ARRL band plan shows that 50.000-50.100MHz is already allocated to cw usage. http://www.arrl.org/FandES/field/regulations/Hambands_color.pdf

A 20kHz slot 50.060-50.080MHz is currently allocated to a beacon sub-band.

Furthermore the area 50.300-50.600MHz is allocated to all modes that can include cw usage.
http://www.arrl.org/FandES/field/regulations/bandplan.html#6m

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B03
Subject	50MHz BAND PLAN – EME USAGE.
Society	Radio Society of Great Britain
Contact	David Butler G4ASR
Status	Proposal

BACKGROUND

With the introduction of specific MGM transmission modes, such as JT65, Earth-Moon-Earth (EME) operation is now possible with single-Yagi stations.

However there is no specific meeting place within the 50MHz band to conduct these types of contacts.

CURRENT SITUATION

Frequencies are mutually agreed to in advance to avoid birdies and interference, often around 50.200MHz.

An analysis of three years of DX Cluster spots regarding worldwide EME contacts shows that the majority of contacts are made on or around 50.190MHz.

PROPOSAL

To add within the Usage column of the 50MHz Band Plan:

50.190MHz: EME (MGM)

NOTE

A number of digital MGM transmission modes have been specifically written into the band plan that over time have either been superseded or made redundant by newer techniques.

It is therefore better practice to mention within the Usage column EME (MGM) rather than specific digital modes.

For further details regarding 50MHz EME see…
http://www.bigskyspaces.com/w7gj/JT65checklist.htm

Document	B04
Subject	50MHz BAND PLAN – CHANGES TO METEOR SCATTER USAGE
Society	Radio Society of Great Britain
Contact	David Butler G4ASR
Status	Proposal

BACKGROUND
The IARU Region-1 50MHz band plan shows Meteor Scatter centre of activity as 50.200MHz.

Furthermore the band plan shows:

50.255MHz: JT44 transmissions,

50.260 – 50.280MHz: FSK441 transmissions with 50.270MHz as the FSK441 calling frequency.

CURRENT SITUATION
The reality is that meteor scatter operation, typically using JT6M, one of the MGM (Machine Generated Mode) modes is practiced on and around 50.230MHz.

JT44 is now a redundant mode and has never been used on 50.255MHz.

Although FSK441 is a popular mode on the 145MHz band its use within the 50MHz band is particularly low and has never been practiced in the sub-band 50.260 – 50.280MHz.

NOTE
A number of digital MGM transmission modes have been specifically written into the band plan that over time have either been superseded or made redundant by newer techniques.

It is therefore better practice to mention within the Usage column Meteor Scatter (MGM) rather than specific digital modes.

PROPOSAL
To delete within the 50MHz Band Plan –

50.200MHz: MS centre of activity

50.225MHz: JT44

50.260 – 50.280MHz: FSK441

50.270MHz: FSK441 calling frequency

To introduce within the 50MHz Band Plan –

50.230: Meteor Scatter (MGM) calling frequency

50.210 – 50.250MHz: Meteor Scatter (MGM)

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B05
Subject	70MHz BAND PLAN – alternative frequencies.
Society	Radio Society of Great Britain
Contact	David Butler G4ASR
Status	Proposal

BACKGROUND

In 1995 a Detailed Spectrum Investigation (DSI) report was presented to CEPT
administrations that included the statement "The DSI Management Team
recommend in the context of the European Table of Allocations and in accordance
with the foregoing, that a minimum of 100kHz in the band 70-70.45MHz be allocated
to the amateur service on a secondary basis according to national considerations, if
feasible, centred on 70.2 MHz".

Furthermore in 2008 a note EU9 was added to the CEPT European Common
Allocation (ECA) table "In a growing number of CEPT countries, parts of the band
70.0- 70.5MHz is also allocated to the Amateur Service on a Secondary basis."

CURRENT SITUATION

There are now a number of countries (see http://www.70mhz.org/bands.htm) within
IARU Region-1 that have permanent allocations in the 70.0-70.5MHz band.

There are also a small number of countries that have temporary allocations within
this frequency range.

It is noted however that some stations in Germany have received temporary
allocations at frequencies centred on 69.950MHz or 69.995MHz. It is also noted that
an amateur station in Belgium has recently requested the use of 69.950MHz.

Although these temporary allocations are to be applauded they do tend to fragment
the 70MHz band.

Furthermore it is understood that these stations have been licensed as "Experimental
Stations" and not as Amateur Service stations with appropriate call signs.

PROPOSAL

That Note (c) be added to the footnotes of the 70MHz band plan to read as follows:

It is strongly recommended that National Societies request frequencies within the 70.000-70.500MHz band.

However it is recognised that the alternative frequency of 69.950MHz (or 69.995MHz) may be useful as a first step in obtaining a permanent allocation within the IARU Region-1 70MHz band.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B06
Subject	1240-1250MHz Update and Bandplan Proposals
Society	Radio Society of Great Britain
Contact	Murray Niman G6JYB
Status	Proposal

Background

At Cavtat, RSGB Paper CT08_C5_19 successfully proposed both a 1240MHz reserve band and an outline scheme for the future of 1240-1250MHz under Cavtat CT08_C5_Rec27. This is intended to efficiently accommodate a variety of modern, spectrally efficient, digital communications including DATV and Digital Voice (DV) and high speed Digital Data (DD).

Since Cavtat, more detailed planning has been undertaken, leading to some amendments being proposed to the precise DV and DD alignments.

VHF Managers Handbook
The current edition (v5.40) of the IARU-R1 VHF Managers Handbook has the following for the new 1240-1241MHz reserve section:-

Frequency MHz	Maximum Bandwidth	MODE	USAGE
1240.000 1240.500	2700 Hz	ALL MODE	(Planned for future)
1240.500 1240.750	500Hz	Telegraphy MGM	Beacons (Planned for future)
1240.750 1241.000	12kHz	FM Digital voice	(Planned for future)

A few Societies such as ARI have already adopted this in to their national bandplan.

Meanwhile the current default bandplan in the handbook is:-

| 1240.000

1243.250 | 20kHz | ALL MODE | 1240.000-1241.000 Digital communications
1242.025-1242.250 Repeater output, ch. RS1 - RS10
1242.275-1242.700 Repeater output, ch. RS11 - RS28
1242.725-1243.250 Packet radio duplex, ch. RS29 - RS50 |

Key Points

- The current bandplan has no usage notes for the All Mode 1241.000-1242.000MHz section. It is therefore potentially feasible to directly incorporate new proposals in the 1241-1242 MHz range, or alternatively extend the 1240-1241MHz reserve scheme in the handbook to at least 1242MHz.

- The current handbook specifies 12kHz Maximum Bandwidth for FM/DV in both current and future bandplans in several sections of the 1240-1300MHz range. This is widely ignored in national bandplans, difficult to implement and not necessary in this band, given that 25kHz spacing is also specified.

- The handbook refers to, but does not directly incorporate, the CT08_C5_Rec27 scheme for 1241-1250MHz. However, in general, important recommendations should be incorporated into the handbook for ease of reference.

- Bandplanning should allow for wider availability of true duplex DD equipment in future

- It is important to recognise there needs to be sufficient options to accommodate constraints from current equipment, as well as from Primary Users.

- It is generally neater to have a consistent set of Input/Output channels and shifts. This was not present in the original Cavtat scheme - it was different for DV and DD.

Proposals

1. We propose that the revised scheme overleaf be adopted for further consideration. This has DV and DD sections with a more consistent 8.25MHz shift (though this does not prevent them being paired with channels higher in the 1240-1300MHz band if available).

2. Based on this scheme, to add the detail for the 1241-1242MHz range to the bandplan.

3. To accept reality and amend all occurrences of 12kHz Maximum BW to at least 20kHz in the 1240-1300MHz bandplan (consistent with the 25kHz spacing)

4. To note that the revised plan supports high speed data by incorporating two sets of 5x150kHz DD blocks centred on:-

    - 1241.075, 1241.225, 1241.375, 1241.525, 1241.675 MHz (+/- 75kHz)
    - 1249.325, 1249.475, 1249.625, 1249.775, 1249.925 MHz (+/- 75kHz)

5. That, in a similar manner to the RSGB 1298-1300MHz paper, these 150kHz blocks may be merged for greater bandwidth. Alternatively, an individual block may be sub-divided to create narrower channels compatible with legacy use (eg 3x50kHz or 6x25kHz)

6. To note that paired sets of FM/DV channels on a 25kHz spacing are envisaged at 1240.775-1240.975 and 1249.025-1249.225 MHz

7. To recall, as per CT08_C5_27, that DATV will take time to develop, so it is important to recognise the need for careful coordination with analogue FMATV inputs, prior to releasing frequencies around 1248-1249 MHz for other applications.

Revision of the Cavtat Scheme for 1240-1250MHz

Frequency	Original Cavtat Example	CH-BW kHz		Revised Plan	
1240.00					
1240.25	NarrowBand	0.5-3		Legacy, Adhoc and Narrowband	
1240.50					
1240.75	Beacons	0.5		Beacons	
1241.00	FM/DV -N	25	Inputs	FM/DV	Inputs
1241.25	DV-N	25			
1241.50		25/150		5x150k DD	
1241.75	DV/DATA-W	25/150	Inputs		
1242.00		25/150		FM/DV	Simplex
1242.25					
1242.50	DATV Blocks:-			DATV Blocks:-	
1242.75	DATV / Multimedia -2			DATV / Multimedia -2	
1243.00					
1243.25					
1243.50					
1243.75	DATV / Multimedia -3			DATV / Multimedia -3	
1244.00					
1244.25					
1244.50					
1244.75	DATV / Multimedia -4			DATV / Multimedia -4	
1245.00					
1245.25					
1245.50					
1245.75	DATV / Multimedia -5			DATV / Multimedia -5	
1246.00					
1246.25					
1246.50					
1246.75	DATV / Multimedia -6			DATV / Multimedia -6	
1247.00					
1247.25					
1247.50					
1247.75	DATV / Multimedia -7			DATV / Multimedia -7	
1248.00					
1248.25					
1248.50					
1248.75	DATV / Multimedia -8			DATV / Multimedia -8	
1249.00					
1249.25		25/150		DV-N / FM	Outputs
1249.50	DV/DATA-W	25/150			
1249.75	DV-N	25	Outputs	5x150k DD	
1250.00	FM/DV -N	25			
1250.25					
1250.50					
1250.75	DATV / Multimedia -10			DATV / Multimedia -10	
1251.00					
	etc			etc	

Abbreviations:

DV-N = Digital Voice/Data Narrow bandwidth – 25kHz BW typical

DV-W = Digital Voice/Data Wide bandwidth – 150kHz BW typical – also known as DD (Digital Data)

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B07
Subject	1298-1300MHz Bandplan
Society	Radio Society of Great Britain
Contact	Murray Niman G6JYB
Status	Proposal

Background

A review of the 1298-1300MHz Bandplan in the VHF Managers Handbook indicates it needs corrections and clarification. It is also opportune to introduce a modernised plan to facilitate new systems and spectrum efficiency. This section is nominally All-modes, but also is a key one for supporting Digital Communications.

VHF Managers Handbook
The current edition (v5.40) of the IARU-R1 VHF Managers Handbook has the following for the 1298-1300 section:-

1298.000			1298.025-1298.500	Repeater output channel freqs, ch. RS1 -- RS28
	20kHz	All Modes	1298.500-1300.000	Digital communications (within RS channels) d)
1300.000			1298.725-1299.000	Packet-Radio duplex channel freqs, ch. RS29 -- RS40

Key Points

- The bandplan designates channels up to 20kHz maximum bandwidth, with 25kHz spacing (although it is an All-Modes section)

- Careful inspection of the current channel numbering shows that as RS1 is1298.025, so RS28 is actually 1298.700 - not 1298.500 as currently indicated. This creates a potentially confusing 200kHz overlap in the 1298.500-1298.700 section

- Current/legacy usage does not need a total of 40 channels, especially for Packet

- There is no guidance in the handbook for merging channels for wider bandwidths and higher data rates. This currently occurs on an uncoordinated though limited basis. However modern developments such as commercial 128kb/s Digital Data (DD) (and perhaps faster in future) indicate it is opportune to introduce a new framework to support this.

- Whist we propose a fresh approach for this part of the band, it is in line with the philosophy used in Cavtat CT08_C5_Rec27 (Cavtat Paper CT08_C5_19 'A new Vision for 23cms') which concentrated on 1240-1250MHz

- A reformed plan could more clearly distinguish the 1298.0-1298.5 MHz segment which commonly supports narrowband experiments and some conventional

repeaters from the rest of 1298.5-1300 section which is preferred for digital communications

- A new plan could also facilitate wider spacing to ease construction of repeaters

Proposals

1. More clearly show that 1298.5-1300MHz is preferred for digital communications, leaving 1298.0-1298.5 for more general uses

2. Designate a nominal set of high speed data channels at 1299.000-1299.750 but in a manner that supports flexible use

3. Designate an additional set of frequencies at the top of the band for possible FM/DV repeater use which maximises frequency shifts to ease cavity filters

4. Add guidance notes to cover narrowband experiments near 1298.000

5. Based on the above we propose the following:-

Frequency, MHz	Max BW	Mode	Usage
1298.000 1298.500	20kHz	All modes	General mixed analogue or digital use in RS1-19
1298.500 1299.000	20kHz	All modes	Digital Communications within RS21-39
1299.000 1299.750	150kHz	All modes	Arranged as 5 x150kHz blocks* To support high speed Digital Data (DD) usage
1299.750 1300.000	20kHz	All modes	8x25kHz Channels** Centres: 1299.775-1299.975

*Centres are: 1299.075, 1299.225, 1299.375, 1299.525, 1299.675 MHz (+/- 75kHz)

These blocks may be merged for greater bandwidth. Alternatively an individual block may be sub-divided to create narrower channels compatible with legacy use (eg 6x25 or 3x50kHz)

**May be used for FM/DV repeater outputs

Additional footnotes:

- RS1 in this section is 1298.025MHz. Higher channels are 25kHz spacing

- Consideration should be given to weak signal use near the bottom of the 1298.000-1298.500 section to provide compatibility with narrowband experiments and down-converters (which may have a ~1296-1298 tuning range)

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B08
Subject	Proposal for reporting contacts made during Rainscatter or Aurora propagations.
Society	OeVSV
Contact	OE5MPL, Peter
Status	Proposal

Since a long time it is common under GHz specialists to report for contacts made during Rainscatter propagations i.e. 56s for CW or SSB contacts.

For contacts made from VHF operators under Aurora propagations it is common to report i.e. 55a for CW or SSB contacts.

Caused by the electronic evaluation of the logs, this operators are now in doubt which report they should put in the log.

Therefore the OEVSV suggests to amend for Rainscatter and Aurora contacts the r or a after RS and the paragraph 5.3.8 should be read as follows:

5.3.8 Contest exchanges
Code numbers exchanged during each contact shall consist of the RS or RST report, followed by a serial number commencing with 001 for the first contact on each band and increasing by one for each successive contact on that band. This exchange must immediately be followed by the complete Locator of the sending station

(examples : 59003 JO20DB or 579123 IN55CC).

For Rainscatter or Aurora propagations (examples:

56r 003 JN78DJ or 57a 123 JO55CC) for CW and SSB contacts.

Note: for the "T" part of the report, see chapter 8.6.1 (for digital RSQ reporting)

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B09
Subject	CONTEST RULES/PROCEDURES
Society	REF
Contact	F6ETI; F6HYE
Status	Proposal

BACK GROUND
In the Ham Spirit, a contest is a competition between amateur radio that takes place
exclusively on the bands allocated to amateur.
This is implicit, and is not written in the rules of competition that have been established there
are now several decades.
Since then, new technologies have emerged that can easily communicate by means other
than radio (within the meaning of the term ham).
Suffice it to be accountable to consult the "traffic" which runs over some "chat" during
competitions.
The drafting of regulations competitions IARU R1 remained virtually static since their
inception.

In their rules of competition, some countries have already clarified this points
"The use of non-amateur radio means of communications (e.g. telephone or the
Internet) for the purpose of soliciting a contact (or contacts) during the contest period
is inconsistent with the spirit and intent of these rules.
Use of self-spotting techniques on packet or other mediums are inconsistent with the
spirit and intent of these rules.
A complete exchange must be logged for each valid QSO."

The RSGB VHF Contest Comittee have revised the VHF General Rules relating to the use of
the DX Cluster and other spotting/chat networks (including internet facilities for example
ON4KST) in RSGB VHF and UHF contests :
4i. The active use (posting messages, arranging skeds, self spotting etc) of the DX
Cluster and other spotting networks (including internet facilities for example ON4KST)
to assist an entry to a contest on 6m, 4m, 2m and 70cm is banned in all RSGB
contests with the exception of three IARU Region 1 co-ordinated contests (50MHz
Trophy in June, 144MHz Trophy in September and 432MHz to 248GHz IARU in
October) and the 144MHz Marconi contest in November where permitted by the
IARU rules for these contests. You may spot a DX station as long as your operating
frequency is not given.

4k. All information must be copied off air at the time of the QSO and on the band in
use. Databases must not be used to fill in missing information. The DX Cluster,
talkback channels etc must not be used for passing or confirming any contest related
information.

To help operators understand these revised rules, a list of do's and don't are listed below:

Do spot DX you have worked or heard when tuning the band for the benefit of all.

Do use the DX cluster to help you find DX during the contest.

Don't use the DX cluster to help the DX find you.

Don't ask other stations that you work to "please spot me"

Don't spot DX you've just worked on your frequency.

Don't spot your fellow team member (if operating in team/multi band contests eg UKAC, AFS, VHF NFD etc).

PROPOSAL

To take account of technological developments and in order to stay within the spirit of amateur radio contest it would be useful to draw up general rules specifying what a competition and what are a valid QSO :

Definition of a contest

A contest is a competition between amateur radio that takes place exclusively on the bands allocated to amateur, with amateur means.

Introduce contest general rules

The active use (posting messages, arranging skeds, self spotting, calling, heading management, frequency management etc.) of the DX Cluster and other spotting networks (including non amateur means eg. telephone, internet facilities like VHF and Microwave chats) to assist an entry to a contest is not allowed in all IARU R1, or in IARU R1 national contests.

You may spot a DX station as long as your operating frequency is not given.

For a complet and valid QSO, all information must be copied off air at the time of the QSO and on the band in use.

Databases must not be used to fill in missing information.

The DX Cluster, talkback channels etc. must not be used for passing or confirming any contest related information.

In the event of use of a talk back frequency (144 MHz if permitted, or lower UHF/microwave band), any return to this talk frequency in the course of session cancels information previously exchanged, and thus the QSO in progress.

Use of self-spotting techniques are inconsistent with the spirit and intent of these rules.

Skeds taken outside contest timeframe are not allowed.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B10
Subject	Procedure for Automatic Contest Log Submission
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

As all the submitted contest logs are in an electronic format it makes it relatively easy to implement automatic contest log collection. By doing so the automatic log cross-checking and fully automated contest adjucation can be realized. At the same time the path for automatic contest log exchange between national VHF managers and IARU R1 VHF&up Contest Robot can be easily established.

This new section is linked to item 5.3.10 and section 5.2 (both of them are subject of a change proposal).

It is proposed to insert this section after the current section 5.8.

5.9   Procedure for Automatic Contest Log Submission and Exchange

5.9.1   To upload a contest log to the IARU R1 VHF&up Contest Robot valid e-mail address must be provided so that submitter can be properly notified on log acceptance/rejection.
5.9.2   Every uploaded log must be in EDI format (as defined in chapter 5.9 of IARU R1 VHF Managers Handbook).
5.9.3   If the log does not comply to the EDI format it must be rejected with an unambigous message which clearly describes the error which caused the log rejection. The notification e-mail must also be sent to the address provided during upload process with the same message. In multiple log upload (ZIP) every rejected log must be clearly marked and commented.
5.9.4   Log acceptance must be confirmed on the web page and via an e-mail with the following information: callsign, locator, recalculated score, accepted number of QSOs and contest section.
5.9.5   In case the log can not be accepted due to decision of the IARU Reg.1 member society or their VHF Contest Manager/Committee to organize log collection on a national level, the rejection message must include the web/e-mail address to which such a log can be uploaded/sent.

5.9.6 In case the same log is uploaded again at some later time the previous log is discarded.

5.9.7 After the claimed scores publication dead time (see section 5.2, I) the logs should become available for automatic exchange with national Contest Robots/Servers or for manual download by the national VHF Managers.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B11
Subject	new section »Rules for Automatic Contest Adjucation«
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

As all the submitted contest logs are in an electronic format it makes it relatively easy to implement automatic contest log cross-checking and thus fully automated contest adjudication. By doing so the results will be available in much shorter time than it is the case today.

During last decade quite some software applications were written by amateurs for automatic contest log cross-check. Every application has its own set of rules how to judge the contact. In order to assure fair adjucation those rules should be clearly written and published in IARU R1 VHF Managers Handbook. In S5 we have 10+ years experience in automatic contest log evaluation. The latest development was done by Peter/S52AA and his web application can be seen at web address http://slovhf.net/vhfmanager/. Based on this long experience and latest S52AA implemenation we created the set of rules that precisely define how an automatic contest adjucation should be done. This is basicaly the design document for the software implementation of the generic VHF Contest Robot. We acknowledge different implementation approaches of every programmer that plans to (or already had) design contest cross-checking robot.

We want to stress out the necessity for formal establishment of such rules.

This new section is linked to item 5.3.10 and sections 5.2 and 5.9 (both of them are subject of a change proposal).

It is proposed to insert this section after the newly proposed section 5.9 (which is to be inserted after the current section 5.8).

5.10 Rules for Automatic Contest Adjucation

Description of terms:
- claimed QSO: any contact that counts more than 0 points
- valid QSO: any contact for which both logs are available and the exchanged information is without any error
- deleted QSO: QSO that is not taken into account in further log processing ????

5.10.1   Crosschecking should consist of 6 steps:
               - deleting of unclaimed QSOs
               - deleting QSOs with uncomplete exchange information
               - marking of valid QSOs
               - marking of unreliable logs
               - deleting of invalid QSOs based on received logs
               - deleting of invalid QSOs based on generated logs

5.10.2   Deleting of unclaimed QSOs
5.10.2.1 Unclaimed QSO is a QSO that has 0 points but it is not a duplicate QSO.
              All such QSOs are deleted.

5.10.3   Deleting the QSOs with incomplete exchange information

5.10.3.1 All the QSOs with contact date/time which is outside the valid contest time are deleted. Example: QSO time is 14:xxGMT on the second day of the contest. Example: contest date is 23./24.09.2009.

5.10.3.2 All the QSOs with wrong mode of operation are deleted. Example: unknown mode (code 0 in EDI).

5.10.3.3 All the QSOs with invalid call sign are deleted. Example: call sign is empty, »ERROR« or contains »?«.

5.10.3.4 All the QSOs with invalid locator are deleted. Example: locator incomplete, empty, contains »?« or »*«.

5.10.3.5 All the QSOs with invalid received QSO number are deleted. Example: received number empty or »0«.

5.10.4   Marking of valid QSOs

5.10.4.1 The QSO is valid when the other log contains the QSO with the same call sign and the exchanged data is not in error (report, contact number and locator). Valid QSO can not be deleted.

5.10.5   Marking of unreliable logs

5.10.5.1 The specific data (call sign, locator) in the log marked as unreliable should not be used for QSO deletion in other logs.

5.10.5.2 The log that was obviously sending different form of the call sign is marked as unreliable. The criterion is applicable to a log with more then 10 valid QSOs. The log is marked as unreliable when 25% or more of correspondents received different form of a call sign than official call sign of that log. Example: log with a call sign S52AA/p has 100 valid QSOs; the call sign in 10 other logs is S52AA and in 25 other logs it is S52AA/2.

5.10.5.3 The log that was obviously sending different locator is marked as unreliable. The criterion is applicable to a log with more then 10 valid QSOs. The log is marked as unreliable when 25% or more of correspondents received different, but same locator than official locator of that log. Example: log with a locator JN75DS has 200 valid QSOs; the locator received in 50 other logs is JN75CS.

5.10.6   Deleting of invalid QSOs based on received logs

5.10.6.1 The QSO is deleted when the bare received call sign (call sign without prefix and/or suffix) matches the bare call sign of one of the received logs, but the received call sign does not match the other log call sign. Example: logged call sign is DL/S53WW but the log from S53WW contains a call sign of DL/S53WW/p. In case the log of S53WW is marked as unreliable with respect to the sent call sign this rule is not applicable.

5.10.6.2 The QSO is deleted when the received locator is not the same as the locator of the other log. Example: logged locator for station S50C is JN76WG but the correct locator is JN76JG. In case the log of S50C is marked as unreliable with respect to the sent locator this rule is not applicable.

5.10.6.3 The QSO is deleted when the received report is not the same as the sent report. Example: logged report is 59 but sent report is 55. Example: logged report is 59S but sent report is 599.

5.10.6.4 The QSO is deleted when the other log contains the calls sign but under the received QSO number some other station is logged, or the received number is higher than the number of QSO's in the other log. Example: logged QSO number is 213 but in the other log the QSO number 213 is not that call sign. Example: logged QSO number is 554 but the other log contains only 64 QSOs.

5.10.7   Deleting of invalid QSOs based on generated logs

5.10.7.1   Generated log is a log of a station that did not sent its log to the IARU R1 VHF&up Contest Robot (has not participated in the contest). Generated log is a partial log created from the data contained in the received logs. Generated log is created on the basis of a bare call sign (call sign without prefix and/or suffix). Example: QSO is entered in a generated log of S57C even when the received call sign is S57C/p or OM/S57C/p.

5.10.7.2   The QSO is deleted when the received call sign is not the same as 90% of received call signs in a generated log. In case the generated log contains less than 10 QSOs this rule is not applicable. Example: logged call sign is S53MM/p; generated log of S53MM contains 10 QSOs and for 9 of them the received call sign is S53MM.

5.10.7.3   The QSO is deleted when the received locator is not the same as 90% of locators in the generated log. In case the generated log contains less than 10 QSOs this rule is not applicable. Example: logged locator for station S53RM is JN76HD; generated log of S53RM containes 10 QSOs and for 9 of them the received locator is JN76JB.

5.10.7.4   The QSO is deleted when the received QSO number is not in sequence of the generated log serial numbers. The criterion to be out of sequence is when the time of a QSO under check is between times of two QSOs in a generated log but the received QSO number is not. The time difference between the two QSOs in a generated log must be more than 15 minutes. In case the generated log contains less than 10 QSOs this rule is not applicable. Example: generated log contains one QSO at 14:25 with sent number of 10 and next QSO at 15:00 with sent number of 34; QSO in log under check at 14:29 has QSO number of 125.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B12
Subject	Beacon Developments and Messages
Society	Radio Society of Great Britain
Contact	Murray Niman G6JYB
Status	Proposal

Background

At Cavtat there was interest in developments on multi-band beacons such as GB3RAL and
the MGM modes they employ. Modern beacons with advanced timing and modulation
capability can provide a valuable service to amateurs, propagation research and enhance
the overall image of the hobby.

Considering

Since Cavtat further MGM advances have occurred such as JT4G, assisted by continuing
developments with Direct Digital Synthesis (DDS). This suggests that it is time that additional
information and guidance may need to be included in the VHF Handbook.

Means to monitor beacons have also continued to improve. ON4KST and the DX cluster are
well established. These have since been complemented by new developments such as
BeaconSpot, http://www.beaconspot.eu/ and developments in SDRs

VHF Managers Handbook
The current edition (v5.40) of the IARU-R1 VHF Managers Handbook has the following in
regard to Beacon use of MGM:-

11.1.5 MESSAGE
As beacons are often heard at very low signal levels, together with spurious
signals, it is important the message is simple, unambiguous and repeated
frequently. It is also necessary to have a period without information ("carrier")
for frequency checking purposes and signal strength measurement and also
to make it easy to distinguish the frequency when using FSK.

Maximum Morse code keying speed should not exceed 60 characters per
minute.

The beacon message should consist of a callsign and possible other
information for identification and a period without information ("carrier"). The
message may also contain other information if required, e.g. locator,
automatic identification and information in MGM modes. The total cycle period
should not exceed 60 seconds and the "carrier" period without information
should not exceed 30 seconds.

For alternative modes the cycle period is F1A + Alternate mode. For example, a beacon transmitting PSK31 would send one period of PSK31 followed by one period of either F1A or A1A. If several alternative modes is used then the total cycle could be F1A/A1A + mode 1 + mode2 + F1A/A1A, repeating continuously.

We believe that there is scope for improving the final paragraph in particular.

Key Points

- In addition to a CWID an increasing number of beacons are taking advantage of DDS to provide MGM modulation and GPS Locking for accurate timing/frequency control

- There is little consensus on the best mode. In addition to CW (which may be A1A or F1A) current systems feature JT65, DFCW, JT4G, phase reversals etc. In addition we have seen and supported the growth of WSPR in the HF and VHF bands

- Many amateurs and regulators continue to expect to hear regular CW idents, without the need for a PC and advance knowledge of what MGM technique is in use

- Some MGM requires a significant amount of time to send and decode. For example, the JT4G symbol rate is ~4baud and needs 48s to transmit. This leaves insufficient time to include a usefully long period of plain carrier as well as a CWID inside a single minute. This makes dual cycles of a minute each with and without MGM desirable

- References to even and odd minutes assume good (GPS?) based timing, which is helpful for both users and automated monitoring equipment

- Whilst MGM is a desirable feature the necessity for a useful period of say 15-30s of plain carrier has not disappeared.

- Some beacons helpfully add a CW symbol or two at the ends of long plain carrier periods to prepare listeners for a change in message/mode.

- Coordinators and builders of advanced beacons also need to consider their bandwidth. For example the very promising JT4G uses 4 tones at 315Hz spacing and needs 1260Hz bandwidth. This fits well with 5-10kHz microwave band spacings where doppler and dispersion is more challenging but would not fit on most VHF/UHF bands where 1kHz spacing is the norm.

- Although it is largely a matter for designers, it is worth pointing out that in the microwave bands, direct multiplication of a baseband DDS can result in excess spurs or phase noise. An alternative is to use a DDS as a divider (a 'reverse DDS') within a phase locked loop that controls a crystal oscillator based source.

- We need to continue to cater for a variety of designs. It would be difficult and expensive to expect every beacon to be engineered for the latest mode or DDS/GPS.

- For information, following a re-licensing exercise in the UK, most microwave beacons are now authorised to transmit "CW callsign every 60s with the option of additional MGM Data" (though the precise time on the licences may vary from 30s, to up to 120s on one cluster). In the UK only the callsign has to be included – the locator and other message contents etc are now optional and not a licence condition

Proposals

6. That additional guidance and some actual message/keying examples are added to the handbook based on the above

7. Examples should include both simple CW systems as well as more advanced beacons. Where long MGM is present that may result in inadequate plain carrier periods within a one minute cycle, the guidance should be more specific with regard to use of even and odd minute cycle contents

8. RSGB is open to further inputs as well as a discussion at the meeting

Document	B13
Subject	IARU R1 VHF Contest rule 5.3.6
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

In current rules only contacts via active repeaters are not counted for points. As we have many EME stations QRV on VHF&up frequencies in Reg.1, the EME QSOs should also be explicitly mentioned in the rule. It would be relatively easy to win the contest for example on 10 GHz with only few EME QSOs. There are special EME contests organized for those stations to compete with each other.

We do not have an explicit rule how the contest contact should be made. There are many irregularities or new practices observed during the VHF&up contests last years, like:
- exchange of complete or partial contest exchange information via bypass communication channel (internet chat, telephone, other amateur band)
- repairing contest log after the contest by crosschecking it with friend's log

It is not the intention of this change proposal to prohibit SKED's, either arranged before the contest or during the contest.
UL must be received (it is clear that must be transmitted – rule 5.3.8 Contest exchanges) on the band where contact started, but it should not be forbidden to state your own locator on some other (bypass) channel (exclusively for pointing the antenna), if we want to arrange a SKED.
We believe that this change proposal reflects tradition and spirit of IARU Reg.1 VHF contests.

5.3.6 Contacts (old)
Each station may only be worked once per band, whether it is fixed, portable or mobile. If a station is
worked again during the same contest on the same band, only one contact may count for points, but any
duplicate contacts should be logged without claim for points and clearly marked as duplicates. Contacts
made via active repeaters do not count for points.

5.3.6 Contacts (new)

Each station may only be worked once per band, whether it is fixed, portable or mobile. If a station is worked again during the same contest on the same band, only one contact may count for points, but any duplicate contacts should be logged without claim for points and clearly marked as duplicates. Contacts made via active repeaters and EME contacts do not count for points.

Competitors are obliged to follow common definition for a valid QSO (described in VHF Managers Handbook). UL should be received on the band where contact started during the contest, however, report and QSO number including confirmation must be received and transmitted only on the band where contact started and only during the contest.

Document	B14
Subject	IARU R1 VHF Contest rule 5.3.10
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

IARU R1 VHF&up Contest Robot is under construction and it is experimentaly
working for a whole year on address http://iaru.oevsv.at/ . It is opening many new
possibilities how to handle contest logs and contest organization.
We have many member societies that have their own system of collecting and
managing their national contest logs and contest results and we assume that most of
them want to retain their system. We have also many national organizations that do
not organize contest log collection and national result preparation and their contest
operators will be perfectly satisfied that IARU VHF&up Contest Robot will do the job.
Here we propose changing the 5.3.10 section of the VHF/UHF/SHF contest rules so
that hopefully all member societies will be satisfied. We also have to discuss, what to
do with possible entrants from other regions (50 MHz).
Part of this change is also reflected in proposed revision of complete section 5.2.

5.3.10 Entries (old rule)
The entries must be set out in digital/electronic form fulfilling the requirements under
section 5.3.13. Logs
must be sent to the national VHF Manager or the national Contest Committee 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.

Change to:

5.3.10 Entries (new rule)
Each IARU Reg.1 member society or their VHF Contest Manager/Committee decide
weather logs of all their participants will be submited by their VHF Contest
Manager/Committee or each participant can upload his log directly to the IARU R1
VHF&up Contest Robot. Logs from each participant must be sent to nationaly agreed
web address not later than the second Monday following the contest weekend.
Participants outside IARU Reg.1 can send their logs directly to IARU VHF&up
Contest Robot. Late entries will not be accepted.

Contest logs must be uploaded to IARU R1 VHF&up Contest Robot by national VHF Contest Managers not later than the second Tuesday after the end of the contest (see section 5.2 for details).

The entries must be set out in digital/electronic form fulfilling the requirements under section 5.3.13.

The submission of the logs implies that the entrant accepts those contest rules.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B15
Subject	IARU R1 VHF Contest rule 5.3.11
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

Present rules for judging of entries are trying to penalize only the station that made a
logging mistake. Loss of points is mainly at the receiving stations because we
assume, that logging at the transmitting station is without errors. After we (S5)
succesfully start our VHF contest robot and made results of it's crosscheck available
and easily controlable by competitors (entrants) we discovered that there is a
substantial number of errors logged by transmitting station too and in most cases
only receiving station is penalised. We are quite sure that many other national
contest evaluators came to the same conclusion and that this topic showed up in
various forum debates.
We should also discuss what to do with stations that made a mistake in declaring
their own CALL or UL in their submitted LOG. We propose to disqualify such entrants
due to careless preparation of their contest log that serves as an official document to
penalize their corespondents.

The amateur radio contact is only valid when both stations confirm the reception of
exchanged information (see section 7.1).

In order to increase the overall quality of contest operation and to stress that both
stations are responsible for any error in contest data exchange we propose a change
to the rule 5.3.11 in a way that both correspondents are penalized for any error in a
logged information.

The introduction of this rule should be made gradually. In the intermediate time of for
example 5 years, the official score publication would be made according to both rules
and the results based on the new rule would be informational only.

5.3.11 Judging of entries (old rule)
The final judging of the entries shall be the responsibility of the organizing society,
whose decision shall be
final. Entrants deliberately contravening any of these rules or flagrantly disregarding
the IARU Region 1
bandplans shall be disqualified.
Each VHF Manager and/or national Contest Committee shall be responsible for
monitoring during
contests. Additional monitoring stations may be appointed but these stations may not
take part in the

contest. The national VHF Manager/Contest Committee is responsible for disqualification based upon the
results of monitoring. The claimed contact shall be disqualified for any error in the information logged by
the station.
Any error in the information logged by a station shall result in the loss by the receiving station of all points
for that contact.

Change to:

5.3.11 Judging of entries (new rule)

The final judging of the entries shall be the responsibility of the organizing society, whose decision shall be final.

Entrants deliberately contravening any of these rules, flagrantly disregarding the IARU Region 1. bandplans and declare CALL or UL that was not used during the contest or UL that does not match the station location shall be disqualified.

Each VHF Manager and/or national Contest Committee shall be responsible for monitoring during contests. Additional monitoring stations may be appointed but these stations may not take part in the contest. The national VHF Manager/Contest Committee is responsible for disqualification based upon the results of monitoring. Any error in the exchanged information logged by a station shall result in the loss of all points for that contact for both correspondents (receiving and transmitting station) – see section 7.1.

Document	B16
Subject	PROCEDURE FOR ORGANISING IARU REGION 1 CONTESTS
Society	ZRS
Contact	Sine Mermal, S53RM
Status	Proposal

Introduction

Due to fast growth of internet infrastructure and increasing usage of computers during and after the contests the complete section that describes the procedure for organizing IARU R1 VHF&up contests needs to be reviewed.
The aim of this proposal is to:
- drasticaly reduce time needed for publication of the official results
- minimize the impact of human factor on the log collection, contest adjucation and publication of the results
- define the automatic collection/exchange of contest logs (no more lost logs due to different subjective reasons)
- define the automatic adjucation of contest logs (all the entrants to be treated in the same way)

The idea lies in the central LOG server (named IARU R1 VHF&up Contest Robot) that serves as an IARU R1 wide contest log database that will be used for automatic preparation of results for IARU contests and as an exchange server for all other VHF&up (national, regional) contests. It's main function are:

1. Uploading VHF Contest logs in correct EDI format (single or ZIP)
2. Establishing list of received logs
3. Establishing list of claimed scores
4. Establishing files for log exchange between VHF/contest managers
5. Crosschecking of all received logs
6. Establishing list of unoficial results
7. Establishing list of official results
8. Forming list of interesting statistical data.

The graphical representation of the procedure for sending the logs is given as appended scheme.

In a separate proposal, a new section (5.9) is introduced that exactly defines the procedure for automatic contest log submission and handling.

In yet another separate proposal, a new section (5.10) is introduced that exactly defines the rules for automatic adjucation (cross-checking) of the contest logs.

New text of the section 5.2.

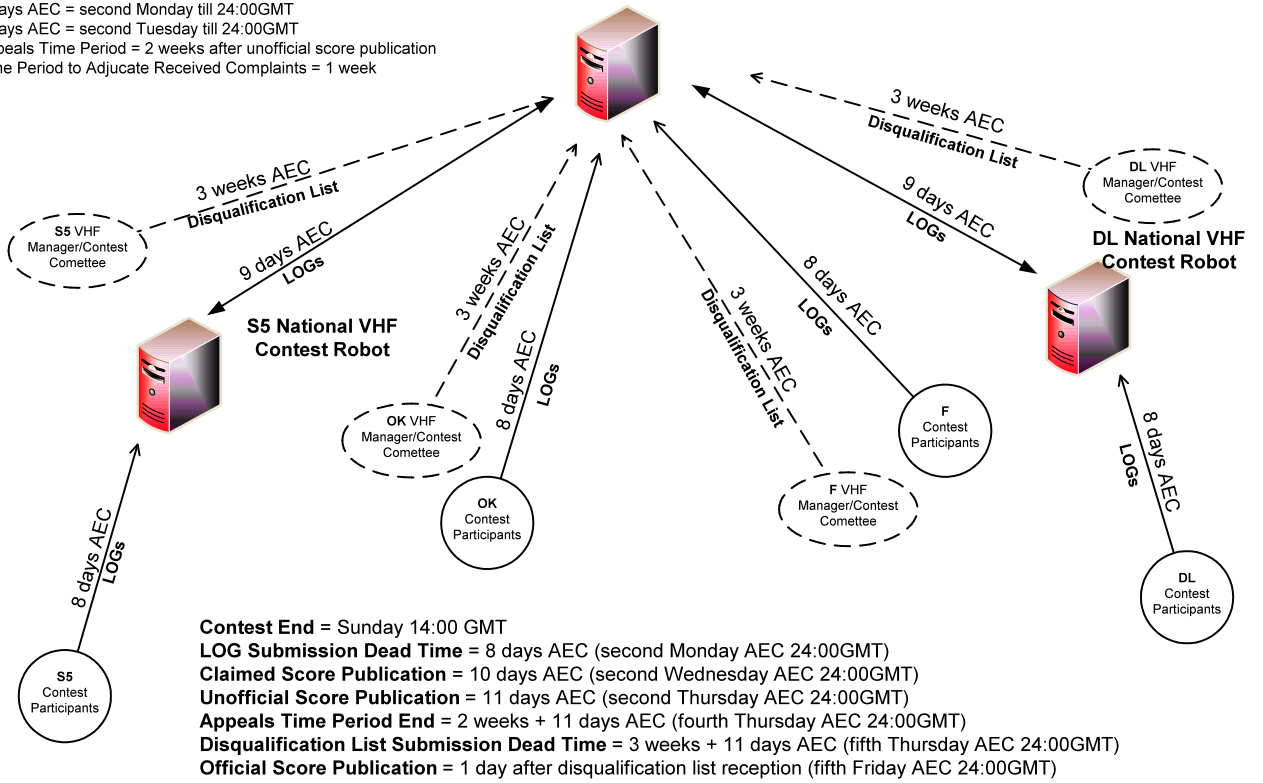## 5.2 PROCEDURE FOR ORGANISING IARU REGION 1 50MHz/145MHz/UHF/MICROWAVE CONTESTS

A) An up-to-date copy of the rules for these contests is included in the latest version of the VHF Managers Handbook that can be downloaded from the official IARU R1 web page (http://www.iaru-r1.org/).

B) The organizing society shall use any suitable means to announce the contest and invite all the amateur radio operators to participate in the contest.

C) The central point for collection of contest logs is a data server called IARU R1 VHF&up Contest Robot. The web address of this server (currently http://iaru.oevsv.at/) shall be published on the official IARU R1 web page.

D) Each IARU Reg.1 member society or their VHF Contest Manager/Committee decides whether logs of all their participants will be submitted by their VHF Contest Manager/Committee or each participant can upload his log directly to the IARU R1 VHF&up Contest Robot. This decision shall be submitted to the Chairman of the IARU R1 VHF/UHF/Microwaves Committee (at any time, new decision overrides the previous one). In case the member society does not submit this decision, the contest participants of this member society are allowed to upload their logs directly to the IARU R1 VHF&up Contest Robot. In case the memeber society decides to organize collection of contest logs on its own, the IARU R1 VHF&up Contest Robot must not accept direct log uploads from participants of that member society. The rejection response must contain information where to upload the contest log (this information must be included in the submitted decision to to the Chairman of the IARU R1 VHF/UHF/Microwaves Committee).

E) Logs from each participant must be sent to nationaly agreed address not later than the second Monday after the end of the contest. Participants outside the IARU Reg.1 can send their logs directly to IARU R1 VHF&up Contest Robot.

F) Contest logs must be uploaded to IARU R1 VHF&up Contest Robot by national VHF Contest Managers not later than second Tuesday after the end of the contest. It is envisioned that national collection of contest logs will be made automatic via national contest log servers. Those servers would have an autonomous connection with the IARU R1 VHF&up Contest Robot for automatic (two way) exchange of the contest logs. It should also be possible to upload the archive file with all the national logs to the IARU R1 VHF&up Contest Robot.

G) The log submission procedure is described in the section 5.9.

H) IARU R1 VHF&up Contest Robot shall maintain the alphabetical list of the stations that submitted the contest log separately for each frequency band. Only the call sign with upload date and time is to be published - the list must not contain any other data. The list should be updated immediately after the log is accepted.

I) IARU R1 VHF&up Contest Robot publishes results based on claimed scores not later than second Wednesday after the end of the contest. The lists should be separate by band and by section. The list must contain: place, callsign, locator, score, number of QSOs, ODX Call, ODX locator, ODX QRB. Optionally the

contest location height and technical data (antennas and TX power) can be published. All the logs become available to all national VHF/Contest managers for their national crosscheck purposes.

J) The IARU R1 VHF&up Contest Robot performes automatic log cross-checking based on the rules described in the section 5.10.

K) IARU R1 VHF&up Contest Robot publishes unofficial results not later than second Thursday after the end of the contest. The list of results, separate by band and by section, should include at least the following data: callsign, UL, score, number of QSOs, number of deleted QSOs, percentage of deleted points, ODX call sign, ODX Locator and ODX QRB. Optionally the contest location height and technical data (antennas and TX power) can be published. List of deleted QSOs per log, clearly commented with specified errors, must be accesible at least to the sender of the log.

L) National VHF Contest Manager/Committee must send a list of disqualified stations based on the arbitration of national complaints not later than fifth Thursday after the end of the contest. If no entries are received all the logs are assumed to be eligible for final evaluation.

M) IARU R1 VHF&up Contest Robot removes all the stations included in the disqualification list and repeats the log cross-checking based on the rules described in the section 5.10.

N) IARU R1 VHF&up Contest Robot publishes official results not later than fifth Friday after the end fo the contest. The list of results should include the same data as for the unofficial results. Deleted QSOs and complete logs shall be made publicly available, but no personal details (address, e-mail,…) from a summary sheet. A list of disqualified and check-log stations is to be published. The list of stations with unreliable logs together with comment on unreliability should also be published. Some most interesting statistical data should be provided, for example number of received logs per country, number of all contacts, number of all different call signs per country, a list of very long contacts, etc..

O) The entrants scoring highest in each section will be awarded the IARU REGION 1 CERTIFICATE. The organizing society will receive the certificates from the chairman of the VHF/UHF/Microwaves committee (signed by the R1 secretary) and will send those after having filled in the relevant data and after signature to the winners in each section. Optionally certificates for all participants may be provided for distribution by national societies. See also chapter 13.

AEC = After End of Contest
8 days AEC = second Monday till 24:00GMT
9 days AEC = second Tuesday till 24:00GMT
Appeals Time Period = 2 weeks after unofficial score publication
Time Period to Adjucate Received Complaints = 1 week

IARU R1 VHF&up Contest Robot

3 weeks AEC
Disqualification List

9 days AEC
LOGs

S5 VHF Manager/Contest Comettee

DL VHF Manager/Contest Comettee

DL National VHF Contest Robot

S5 National VHF Contest Robot

3 weeks AEC
Disqualification List

8 days AEC
LOGs

OK VHF Manager/Contest Comettee

3 weeks AEC
Disqualification List

8 days AEC
LOGs

F Contest Participants

OK Contest Participants

F VHF Manager/Contest Comettee

8 days AEC
LOGs

DL Contest Participants

8 days AEC
LOGs

S5 Contest Participants

Contest End = Sunday 14:00 GMT
LOG Submission Dead Time = 8 days AEC (second Monday AEC 24:00GMT)
Claimed Score Publication = 10 days AEC (second Wednesday AEC 24:00GMT)
Unofficial Score Publication = 11 days AEC (second Thursday AEC 24:00GMT)
Appeals Time Period End = 2 weeks + 11 days AEC (fourth Thursday AEC 24:00GMT)
Disqualification List Submission Dead Time = 3 weeks + 11 days AEC (fifth Thursday AEC 24:00GMT)
Official Score Publication = 1 day after disqualification list reception (fifth Friday AEC 24:00GMT)

Displayed national organizations are choosen for illustrational purposes only!

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B17
Subject	Introducing a standard for the bandnomination in the EDI format
Society	UBA
Contact	ON4AVJ Jacques Verleijen
Status	Proposal

Background

During the IARU R1 conference in Cavtat 2009 the EDI format was made the standard for exchanging VHF/UHF and μwave contestlogs. This is a very good step for the automatic corrections of the logs. There remains still a little problem. The different contestprograms are using different names for the used frequencys. This hampers the automatic correction of the logs. As an example the 23cm band is named at the following way: 23 cm, 1,2 GHz, 1.2 GHz, 1,3 GHz, 1.3 GHz, 1296 MHz, etc… This is also the case for all the other bands.

Current situation

There is for the moment no standardization

Proposal

We want to harmonise the names from the different bands in general and specific for the use in the EDI format. The following table proposes the unique names of the bands and the way the frequency is noted. In the EDI format only the frequency can be used

Band	Frequency
6m	50 MHz
4m	70 MHz
2m	144 MHz
70 cm	432 MHz
23 cm	1,2 GHz
13 cm	2,3 GHz
10 cm	3,4 GHz
6 cm	5,7 GHz
3 cm	10 GHz
-	24 GHz
-	47 GHz
-	77 GHz
-	122 GHz
-	134 GHz
-	248 GHz

Remark:the use " ," or " ." as decimal sepator is to be decided

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Document	B18
Subject	Introducing a Rover class in the UHF/SHF and µwave contests
Society	UBA
Contact	ON4AVJ Jacques Verleijen
Status	Proposal

Background

During the contests there is relatively less activity on those bands, and so there are not so many squares activated. To give a new boost to these contests we are proposing the installation of a Rover class, for the band 1,2GHz and higher.

Proposal

The installation of a new "Rover" class during the UHF/SHF and µwave contests (1.2 GHz and above).

A Rover station is a station traveling to more than one grid location during the same contest. Rover stations use "Rover" or "/R" as suffix with the same callsign.

A Rover station can be worked more than once, on the condition that the rover has changed from locator square, this means a change of the 4 first digits (eg. from JO32.. to JO31..).

The final score of the Rover station is the sum of the logs per square. A Rover station makes a specific EDI file for each locator. The sum of the different logs will be the final result of the rover station.

Remark:

The UBA will install for his national championship a Roverclass for the bands 1.2 GHz and higher. This can be used as a test case for the IARU R1.

The contestprogram "WinOnContest" will support this new class in 2010.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B19
Subject	Highspeed data feeds in top segment of the 23cm band
Society	UBA
Contact	ON4AVJ Jacques Verleijen
Status	Proposal

Background:
Currently there is no place provided for broadband highspeed data stations on the 23cm band. These (usually GMSK modulated), simplex stations are currently active on a non-coordinated frequency in the band. Given the ever increasing number of these stations, it is desirable to coordinate. To be expected is interference of the Galileo system: alternative freq must be available.

Proposal:
4 channels centred on 1299.125, 1299.375, 1299.625 MHz for Simplex highspeed data stations. As well vertical/horizontally or left- or right-hand polarisation is to be used. Max. 200 KHz bandwidth

Remark:
We have to be prepared in case in case of Galileo system interference. The back-up frequencies should be between 1241 and 1242 MHz. (4 channels)

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B20
Subject	Partly grid of 6,25 kHz channels in 2 m band as a transitional period to DV.
Society	UBA
Contact	ON4AVJ Jacques Verleijen
Status	Proposal

Background:
the large number of analog repeaterstations in the 2 m band, disables the implementation of DV repeaters in this band. Seen DV is the the biggest and fastest-growing mode with a smaller bandwidth to analog FM.

Proposal:
It is desirable to provide room within the current repeaters frequencies with use of a grid of 6,25 kHz

1	145,600000	16	145,693750
2	145,606250	17	145,700000
3	145,612500	18	145,706250
4	145,618750	19	145,712500
5	145,625000	20	145,718750
6	145,631250	21	145,725000
7	145,637500	22	145,731250
8	145,643750	23	145,737500
9	145,650000	24	145,743750
10	145,656250	25	145,750000
11	145,662500	26	145,756250
12	145,668750	27	145,762500
13	145,675000	28	145,768750
14	145,681250	29	145,775000
15	145,687500	30	145,781250
		31	145,787500

The odd channels are to be used for Analog FM , the odd and even channels for DV, this in function of their geographic location and their frequency allocation to prevent interference of other AV and DV repeaters.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B21
Subject	Expanding the range for the unmanned stations in the 70cm band.
Society	UBA
Contact	ON4AVJ Jacques Verleijen
Status	Proposal

Background

New techniques such as "Digital Voice" and "Digital Data" encourages more radioamateurs to build and use unmanned stations to experiment in these modes. The 70cm allocation for repeaters with -7.6 MHz shift is already heavily used, so we are in need of more frequencies for this kind of applications.

Current situation

The voice repeaters have input channels from 431.050 to 431.825 MHz and output frequencies from 438.650 to 439.425 MHz. This equals to 32 duplex-channels with a 25 kHz spacing.

The frequency-range from 439.4375 to 439.5875 MHz (and inputs 7.6 MHz lower) is already in use for Digital Voice in DL - HB - ON.

Proposal

Increase the number of channels for voice repeaters to 38 by changing the 70cm bandplan and then double this number by changing the spacing to 12.5 kHz:

4.5   430 - 440 MHz BANDPLAN

Frequency MHz	Maximum Bandwidth	MODE	USAGE	
430.000 SUB-REGIONAL (national bandplanning) (d) 432.000	20kHz	ALL MODES	430.025 - 430.375	FM repeater output-channel freqs (F/PA/ON),12,5 kHz spacing, 1.6 MHz shift (f)
			430.400 - 430.575	Digital communication link channels (g) (j)
			430.600 - 430.925	Digital communications repeater channels (g) (j) (l)
			430.925 - 431.025	Multi mode channels (j) (k) (l)
			431.050 - 431.9875	Repeater input channel freqs, 12.5 kHz spacing, 7.6 MHz shift (f)
			431.625 - 431.975	Repeater input channel freqs (F/PA/ON), 12.5 kHz spacing, 1.6 MHz shift

Frequency MHz	Maximum Bandwidth	MODE	USAGE	
434.594 ATV (c) & FM 434.981	12kHz (c)	ALL MODES		REPEATER OUTPUT (region 1 system), 25 kHz spacing, 1.6 MHz shift, (Channel freq 434.600 -- 434.975 MHz)
435.000 438.000	20kHz (c)	Satellite service & ATV (c)		
438.000 ATV (c) & SUB-REGIONAL (national bandplanning) (d) 440.000	20kHz (c)	ALL MODES	438.025 - 438.175 438.200 - 438.525 438.550 - 438.625 438.650 - 439.5875 439.800 -- 439.975 439,9875	Digital communications channel frequency (g) Digital communications repeater channels (g) (j) (l) Multi-mode (j) (k) (l) Repeater output channels,12,5 kHz spacing, 7.6 MHz shift, (f)

Remarks
Allow the possibility of 6.25 kHz channels on all the repeater frequencies for the use of narrow band modes with a maximum bandwidth of 6 kHz.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B22
Subject	Use of Remote Stations in Contest
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

We propose to don't permit the use of remote stations during contest cause the main activity of all of us is ham-radio without the use of all others communications way except radio- frequency.
We prefer to limitate the use of the net-link via internet.

Document	B23
Subject	Use of Web-Chat and DX-Cluster in Contest
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

We propose to put a new regulation for the use of Chat and DX-Clusters; we think that none is allowed to put self-spot for him or for his team; none is allowed to put a dx-spot with all the qso information to confirm a qso or to facilitate some other; none is allowed to have a sked via dx-cluster.

The use of Web-Chat (like ON4KST) will be permitted but only to take skeds and not to put announce to inform all toward we are calling or in which frequency, and to send report or serial number or to confirm a qso.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B24
Subject	10 Minutes Rule in Contest
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

We propose to clarify that all qso time in UTC have to indicate the end of the 2-way qso,
someone still put the time of the start but in MW some qsos are longer than 10 minutes so if the other will put the end time the qso will be revoked.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B25
Subject	No-Contest Window on 50 MHz
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

During last IARU 50 MHz Contest we had a very nice propagation with Caribbean and USA; we noted that some station from KP4 were disturbed to give serial numbers cause they were calling up to .130 without take part in the competition; they were above 50.130 cause the 50.100-50.130 was real crowded for all.

We propose, to prevent similar cases during the next solar cycle maximum, in making the No-Contest window 50.100-50.150.

INTERIM MEETING OF THE IARU REGION 1 VHF/UHF/MICROWAVE
COMMITTEE
VIENNA FEBRUARY 20-21 2010

Document	B26
Subject	June Contest (Microwave Contest)
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

We noted that we have a strange situation about bands use for each country for the
June
Contest:

50 MHz & 144 MHz for Belgium

144 MHz & Up for Slovenia, Slovakia, France, Romania, Serbia, Hungary, Spain.

432 MHz & Up for Italy

1296 MHz & Up for Austria, Germany, Czech Rep., Poland, UK, Scandinavia.

We propose to align all the rules about bands activity to have at least each country
active on 432 MHz & Up and take the free choice to use also 50 or 144 MHz; this to
make the same number of competitions during the years for all VHF & Up bands:

144 MHz – March-May-July-Sept-Nov   5 Competitions per year.

432 & Up - March-May-June -July-Oct   5 Competitions per year.

Document	B27
Subject	Iaru.oevsv.at
Society	ARI
Contact	Alessandro Carletti IV3KKW
Status	Proposal

We thank all for the great work on http://iaru.oevsv.at , but like we mentioned to Michael OE1MCU, the web site have to be modified cause all can see the final score after cross check and this could create problems to local VHF Managers, at the same time all can see the log of all with errors, so if we in Italy we publish our final results someone could compare with the web site ones.

We think that the site have to be used only for VHF Managers and all the others have to see only declared scores.

We underline that only the National Contest Managers can send logs to IARU organizing
Member Society, not single partecipants.

Document	B28
Subject	**ITU Notification Requirements for Amateur Satellites**
Society	Radio Society of Great Britain
Contact	Graham Shirville G3VZV

Background

In recent years there has been a dramatic increase in the number of satellites being launched which operate on frequencies in the Amateur Satellite Service.

This service has different and less onerous notification and registration requirements than most other services, but it has been noted that many satellites have not actually been notified to the ITU at all. This has led to their records of frequency usage, which are often examined by other services, providing an incomplete picture to our possible detriment.

This paper shows the correct procedure which should be followed for all such projects.

It should be noted that this ITU procedure should proceed in parallel with the IARU Frequency Coordination process which is still required.

All member societies are requested to familiarise themselves with this procedure and to encourage/ensure that satellite builders in their country follow the process.

Procedure

1.   Potential Amateur Satellite Builder

A potential amateur satellite builder is required to inform their National Telecommunications Regulatory Authority about their planned satellite project.

2.   The Regulatory Authority

2.1   verifies that the project is in accordance of ART 25 and other   provision of the Radio Regulations (RR)

2.2   checks if the satellite, telemetry and command ground station(s) will be operating under valid amateur licenses

2.3   in cooperation with the responsible amateur licence holder, submits the required API (Advanced Publication Information) information to the ITU (Bureau) – see the required data in the wizard at: http://www.itu.int/ITU-R/space/support/ARS/ARS-APIhelp.pdf

Basically it's necessary to send general orbital characteristics, frequency bands (not exact frequencies), emissions, service area, antenna diagrams and some other data – see the wizard.

3   The Bureau will publish, based on the API data from the Regulatory Authority, an API/A special section to inform all administrations about the project

4   At the same time (as submitting the API to the Bureau), or preferably earlier, the responsible amateur license holder should contact the IARU Satellite Adviser and submit all required information for the IARU amateur satellite frequency coordination process. See the information at http://www.iaru.org/satellite/

5   The National Regulatory Authority (with help of the Bureau) has to solve any API potential problems (for example exclusion of country from the service area of the satellite) and the Bureau will publish it in API/B publication.

7   When the IARU amateur satellite frequency coordination is completed the IARU Satellite Frequency Coordinator informs the responsible amateur license holder of the coordinated frequencies and some other (if necessary) conditions/restrictions.

8   If all is in order, the National Regulatory Authority, in cooperation with the Satellite builder, submits the required notification data to the Bureau using SpaceCap software (see CR/303 for details) – more detailed data, including EXACT frequency assignments (notification wizard is under preparation)

9   The Satellite has to be operational within 7 years from the date of the receipt of the API information.. Notification shall reach the Bureau not earlier than 3 years before the satellite is operational.

10   The Bureau will publish, based on the notification data, a PART I-S   publication – acknowledgment

11   The Bureau will publish the result, in its technical and regulatory   examinations and findings, in PART II-S publication – resulting in   INTERNATIONAL RECOGNITION and RECORDING of the satellite in the Space Master Register following all regulatory requirements of the RR