



# International Amateur Radio Union Region 1

Europe, Middle East, Africa and Northern Asia

Founded 1950



## General Conference, Davos, 11 to 16 September 2005

<b>SUBJECT</b>	<b>Committee C5 recommendations to Final Plenary</b>		
<b>Committee:</b>	<b>C5</b>	<b>Paper number:</b>	<b>DV05_C5_Final recommendations</b>

### **DV05\_C5\_Rec\_01**

*The following recommendations from the VIENNA 2004 meeting of your VHF/UHF/Microwaves committee are presented here. Those have been accepted by the EC at its April 2004 meeting. You are requested to formally ratify those recommendations*

- a. To amend the 435 MHz bandplan by introducing an FM Telephony repeater system with an input-output frequency difference of 2 MHz ( details in Annex Rec 01-A).**
- b. To change the frequencies of digital channels in the 435 MHz band according to the EDR proposal in Annex Rec 01- B:**
- c. To add 433,800 MHz as a frequency for APRS ( with the note that this only applies in cases where 144,800 MHz cannot be used)**
- d. To add in the usage column of the 1,3 GHz bandplan for 1272-1291 MHz DATV besides ATV.**
- e. To amend the 47 GHz bandplan so that the NB segment lies between 47088 and 47090 MHz with 47088,200 MHz as the centre of activity.**
- f. To amend the rules for all VHF up IARU R1 contests with the rule: "All the equipment of the station (transmitters, receivers and antennas, etc) must be located within a single circle of no greater than 500 metres diameter. "**
- g. To extend the frequencies for which the S9 level is -93 dBm from 144 MHz down to 30 MHz in IARU technical recommendation R1.**

Annex Rec 01-A:

To move the Repeater input segment ("Region 1 system")

From: 432,994 – 433,381 MHz

To: 432,594 – 432,981 MHz

Keeping the Output segment at:

434,594 – 434,981 MHz

The result will be a 2 MHz spaced repeater system with all the repeater input frequencies and some of the output frequencies free from SRD/LPD interference.

The first step to make this move possible was taken at the San Marino conference in 2002 where it was agreed to move the beacon segment from 432,800 – 432,990 MHz to 432,400 – 432,490 MHz.

That transition was finished per January the 1<sup>st</sup> 2004.

Annex Rec 01-B:

To move the digital segment (Footnote i -1)

From: 432,700 – 432,725 – 432,750 - 432,775 MHz

To: 432,500 - 432,525 – 432,550 – 432,575 MHz

Keeping the “corresponding” digital segment at:

434,475 – 434,500 – 434,525 – 434,550 – 435,575 MHz

The result will be a 2 MHz spaced digipeater system (in continuation of the FM repeater system) with all the lower frequencies free from SRD/LPD interference

**DV05\_C5\_Rec\_02  
DELETED**

***DV05\_C5\_Rec\_03 Societies should collect information on possible threats to the VHF/UHF/Microwaves bands in their respective countries. This information is to be forwarded to the Allocations Coordinator for inclusion in a Threats Table.***

(An example of such a table has been provided by RSBG in Annex Rec 03-).

Annex Rec 03-:

**UK Amateur Radio Microwave Allocations and Status**

Band	Allocation Status	Threat/Comment
1240-1325	Secondary	Galileo
2310-2450	Secondary Users must accept interference from ISM users	WLANs
3400-3475	Secondary	Various Digital Radio, UWB
5650-5680 5755-5765 5820-5850	Secondary Users must accept interference from ISM users	Fragmented into 3 subbands. EU17 & EU23 Largely ignored Wimax WLANs, UWB 5725+ Fixed Wireless Access
10000-10125 10225-10475	Secondary	Various Fixed Digital Radio UWB
24000-24050	<b>Primary</b> Users must accept interference from ISM users	Automotive SRR

Band	Allocation Status	Threat/Comment
24050-24150	Secondary (2) May only be used with written consent. Users must accept interference from ISM users	Automotive SRR
24150-24250	Secondary	Automotive SRR
47000-47200	<b>Primary</b>	
75500-76000	<b>Primary (1)</b>	EU35 2006+ extension not yet implemented in the UK
76000-77500	Secondary	Automotive LRR
77500-78000	<b>Primary</b>	Automotive SRR
78000-81000	Secondary	Automotive SRR
122250-123000	<b>Primary</b>	
134000-136000	<b>Primary</b>	
136000-141000	Secondary	
142000-144000	<b>Primary (1)</b>	
241000-248000	Secondary	
248000 –250000	<b>Primary</b>	

ISM = Industrial, Scientific and Medical.

LRR = Long Range Radar, SRR= Short Range Radar, for Automotive applications

UWB = Ultra Wide Band

(1) Until 31st December 2006.

(2) No permits have been issued for this band

NOTE: UK Intermediate Licence Users lost access to bands between 47.2GHz and 248GHz, following Notice of Variations (NoVs) issued on 26-Jul-2003

#### DV05\_C5\_Rec\_04

A column with maximum bandwidths will be added to 70 MHz , 435 MHz and 1,3 GHz bandplans. The resulting bandplans are in Annex Rec 04-A.

Annex Rec 04-A:

#### 70.0 - 70.5 MHz BANDPLAN

Frequency (MHz)	Maximum Bandwidth	MODE	Usage
70.000	500 Hz	TELEGRAPHY, MGM	Beacons 70.030 Personal beacons
70.050	2700 Hz	TELEGRAPHY, SSB, MGM	70.150 MS calling 70.185 Crossband center of activity 70.200 Telegraphy/SSB calling
70.250	12 kHz	AM/FM a)	70.260 AM/FM calling

<b>70.294</b>	<b>12 kHz</b>	FM CHANNELS, 12.5 kHz spacing	70.3000 RTTY/FAX
<b>70.500</b>			70.3125 Packet radio 70.3250 Packet radio     70.4500 FM calling 70.4625 70.4750 70.4875 Packet radio

a) No MGM traffic between 70.250 and 70.294 MHz.

### 430 - 440 MHz BANDPLAN

Frequency (MHz)	Maximum Bandwidth	MODE	Usage
<b>430.000</b>	<b>20 kHz</b>	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 - 431.825 Repeater input channel freqs (HB/DL/OE), 25 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
<b>431.981</b>			
<b>432.000</b>	<b>500 Hz</b>	Telegraphy (a)	432.000 - 432.025 EME
			432.050 Telegraphy centre of activity
<b>432.100</b>			432.088 PSK31 centre of activity
<b>432.100</b>	<b>2700 Hz</b>	TELEGRAPHY, SSB, MGM	432.200 SSB centre of activity
			432.350 Microwave talkback centre of activity
<b>432.399</b>			432.370 FSK441 random calling
<b>432.400</b>	<b>500 Hz</b>	TELEGRAPHY, MGM	Beacons <b>Exclusive (b)</b>
<b>432.490</b>			
<b>432.500</b>	<b>12 kHz</b>	ALL MODES	432.500 Narrow-band SSTV
			432.500-432.575 Digital communications channels (by exception !!) (i)
			432.500-432.600 LINEAR TRANSPONDER IN(e)
			432.600 RTTY (ASK/PSK)
			432.700 FAX (ASK)
<b>432.994</b>			432.600-432.800 LINEAR TRANSPONDER OUT(e)
			432.594-432.981 REPEATER INPUT REGION 1 STANDARD, 25 kHz spacing, 2 MHz shift (Channel freq 432.600--432.975 MHz)

			In the UK repeater OUTPUT channels.	
<b>432.994</b>	<b>12 kHz</b>	FM REPEATER	REPEATER INPUT REGION 1 STANDARD, 25 kHz spacing, 1.6 MHz shift (Channel freq 433.000--433.375 MHz) In the UK repeater OUTPUT channels.	
<b>433.381</b>				
<b>433.394</b>	<b>12 kHz</b>	FM	433.400	SSTV(FM/AFSK)
<b>433.581</b>			433.500	(Mobile) FM calling SIMPLEX CHANNELS, 25 kHz spacing, ( Channel freq 433.400 - 433.575 MHz)
<b>433.600</b>	<b>20 kHz</b>	ALL MODES	433.600	RTTY (AFSK/FM)
			433.625 - 433.775	Digital communications channels (g) (h) (i)
			433.700	FAX channel (FM/AFSK)
<b>434.000</b>			433.800	APRS (only when 144.800 can not be used) Centre frequency of digital experiments as defined on note (m)
<b>434.000</b>	<b>20 kHz (c)</b>	ALL MODES & ATV (c)	434.450 - 434.575	Digital communications channels (by exception !! ) (i)
<b>434.594</b>				
<b>434.594</b>	<b>12 kHz (c)</b>	FM & ATV(c)	REPEATER OUTPUT (region 1 system), 25 kHz spacing, 1.6 MHz shift, (Channel freq 434.600 -- 434.975 MHz) In the UK repeater INPUT channels	
<b>434.981</b>				
<b>435.000</b>	<b>20 kHz (c)</b>	ALL MODES	Satellite service & ATV (c)	
<b>438.000</b>				
<b>438.000</b>	<b>20 kHz (c)</b>	ALL MODES	438.025 - 438.175	Digital communications channel freqs (g)
ATV (c) & SUB-REGIONAL (national bandplanning ) (d)			438.200 - 438.525	Digital communications repeater channels (g) (j) (l)
			438.550 - 438.625	Multi-mode (j) (k) (l)
			438.650 - 439.425	Repeater output channels (HB/DL/OE), 25 kHz spacing, 7.6 MHz shift, (f)
			439.800 -- 439.975	Digital communications link channels (g) (j)
<b>440.000</b>			439,9875	POCSAG centre

#### NOTES ON THE 430 - 440 MHz BANDPLAN

##### **1.IARU REGION 1 BANDPLAN**

The following notes are part of the officially adopted IARU Region 1 bandplan, and all member societies should strongly promote adherence to the recommendations made in these notes.

##### 1.1. General

- i. In Europe no input or output channels of telephony repeaters shall be allowed to operate between 432 and 433 MHz.( From 1-1-2004 those frequencies are ....between 432.000 and 432.600 MHz .....
- ii. Beacons, irrespective of their ERP, will have to be located in the exclusive beacon part of the band.
- iii. FM telephony channels and Repeaters are specified in section VIb

##### 1.2. Footnotes

- a. Telegraphy is permitted over the whole narrow\_band DX part of the band; Telegraphy exclusive between 432.000 \_ 432.100 MH. PSK31, however, can be used as well in this segment
- b. Within IARU Region 1 the frequencies for beacons with an ERP of more than 50 Watts are coordinated by the IARU Region 1 Beacon Coordinator (see section IX).
- c. i. ATV operators should be encouraged to use the microwave allocations where available, but may continue to use the 430 MHz band where permitted by the licensing authority. In case of interference between ATV and the Amateur Satellite Service ,the Satellite Service should have priority.
- ii. ATV transmissions in the 435 MHz band should take place in the segment 434.000 \_ 440.000 MHz. The video carrier should be below 434.500 MHz or above 438.500 MHz. National societies should provide guidance to their members on the exact frequencies to be used, with due consideration of the interests of other users. In the segment 434.000 – 440.000 MHz, ATV operation is allowed to exceed the maximum bandwidth specified for different subsegments, into which the segment 434.000 – 440.000 MHz is divided.  
(Noordwijkerhout 1987)
- d) The words "Sub\_regional (national) bandplanning" appearing in IARU Region 1 VHF/UHF/Microwave bandplans mean the following:  
  
In bands and sub\_bands not available throughout Region 1, band\_planning should be coordinated on a sub\_regional basis between the countries where those bands and sub\_bands are allocated to the Amateur Service. The words "national bandplanning" refer to bands/segments which are available only in a single country (such as the 70 MHz band allocation), or only in a few widely separated countries.(Torremolinos 1990)
- e) At the IARU Region 1 Conference in Torremolinos (1990) the output band for linear transponders was extended from 432.700 to 432.800 MHz under the following condition:  
  
The established use of 432.600 MHz for RTTY (ASK/PSK) and 432.700 MHz for FAX should be respected when installing linear transponders which use this allocation.

## 2. USAGE

The following notes are referring to the Usage column in the bandplan. As already set out in the introduction to section IIc, in the right amateur spirit operators should take notice of these agreements which are made for operating convenience, but no right to reserved frequencies can be derived from a mention in the Usage column or from the following notes ( except where “exclusive”is mentioned”).

### 2.1. General

deleted

### 2.2. Footnotes

- f. The HB/DL/OE wide\_shift repeater system, already in use for a long time, is valuable with a view to a better utilisation of the whole band. Hence IARU Region 1 endorses the system.  
This also applies for the French repeater channel system, also adopted by the Netherlands and Belgium, which IARU Region 1 supports as a useful measure to fill a hitherto unused part of the band.  
For the numbering of FM telephony channels see appendix 2 to this section
- g. In the Usage section of the 435 MHz bandplan the following frequency segments have been designated for digital communications:
  - i) 430.544 \_ 430.931 MHz Extension of the 7.6 MHz repeater system input for digital comm.  
438.194 \_ 438.531 MHz Output channels for the above
  - ii) 433.619 \_ 433.781 MHz  
438.019 \_ 438.181 MHz
  - iii) 430.394 \_ 430.581 MHz For digital communication links  
439.794 \_ 439.981 MHz For digital communication links

With due regard to the band allocated to the Amateur Service by the national Administration, the interests of other users, possible interference from e.g. ISM, the specific digital technique or system to be accommodated etc., a sub\_regional, or national choice may be made within the above segments.

- h. In those countries where 433.619 \_ 433.781 MHz is the only segment of the 435 MHz band available for digital communications, modulation techniques requiring a channel separation exceeding 25 kHz should not be used. If different or incompatible use of this part of the frequency spectrum is contemplated in neighbouring countries, this use should be coordinated between the countries concerned with the aim of avoiding harmful interference.
- i. On a temporary basis, in those countries where 433.619 \_ 433.781 MHz is the only segment of the 435 MHz band available for Digital Communications:
  1. Channels with centre frequencies 432.500, 432.525, 432.550, 432.575, 434.450, 434.475, 434.500, 434.525, 434.550 and 434.575 may be used for digital communications.
  2. Use of these channels must not interfere with linear transponders.
  3. Modulation techniques requiring a channel separation exceeding 25 kHz must not be used on these channels.

(De Haan, 1993)

- j. At the IARU Region 1 Conference in Torremolinos (1990) the following recommendation was adopted regarding the segments for repeaters and links, shown in footnote g:

For a repeater/link to be installed within 150 km of a national border, the member society should co\_ordinate the frequency allocation and the technical (system) data with the member societies in neighbouring countries. Special attention should be paid to the common good practice of using directional antennas and the minimum power necessary.

As a matter of course this agreement is also valid for any link experiments carried out on the multi\_mode channels in the segment 438.544--438.631 MHz. ( De Haan, 1993 ).

- k. These multi\_mode channels are to be used for experimenting with new transmission technologies (De Haan, 1993)
- l. In the United Kingdom the use of low\_power speech repeaters on repeater channels in the segment 438.419--438.581 is allowed. Where necessary, frequencies will be coordinated with neighbouring countries (De Haan, 1993).
- m. Experiments using wide band digital modes may take place in the 435 MHz band in those countries that have the full 10 MHz allocation. These experiments should be in the all modes section around a frequency of 434 MHz, use horizontal polarisation and the minimum power required. These experiments are allowed to exceed the maximum bandwidths indicated in the bandplan. (Tel Aviv 1996)

### 1240 - 1300 MHz BANDPLAN

Frequency (MHz)	Maximum Bandwidth	MODE	Usage
1240.000	20 kHz	ALL MODES	1240.000-1241.000 Digital communications d)
			1242.025-1242.250 Repeater output, ch. RS1 - RS10
			1242.275-1242.700 Repeater output, ch. RS11- RS28
1243.250			1242.725-1243.250 Packet radio duplex, ch. RS29 – RS50
1243.250	d)	ATV	1258.150-1259.350 Repeater output, ch. R20 – R68
1260.000			

1260.000		SATELLITE SERVICE	
1270.000	d)		
1270.000	20 kHz	ALL MODES	1270.025-1270.700 Repeater input, ch. RS1 -- RS28 1270.725-1271.250 Packet Radio duplex, ch. RS29 -- RS50
1272.00	d)	ATV	
1290.994			Including DATV
1290.994	12 kHz	FM REPEATER INPUT,	RM0 (1291.000) 25 kHz spacing RM19 (1291.475)
1291.481			
1291.494	d)	ALL MODES	Repeater INPUT, ch. R20 – R68 Ch. R20 (1293.150) Ch. R68 (1294.350)
1296.000	500 Hz	TELEGRAPHY , MGM	1296.00-1296.025 Moonbounce 1296.138 PSK31 centre of activity
1296.150	2700Hz	TELEGRAPHY, SSB;MGM	1296.200 Narrow-band centre of Activity <b>1296.370 FKS441 MS calling</b> 1296.400-1296.600 Linear transponder input 1296.500 SSTV 1296.600 RTTY 1296.700 FAX 1296.600-1296.800 Linear transponder output
1296.800	500 Hz	TELEGRAPHY, MGM	BEACONS EXCLUSIVE (b)
1296.994	12 kHz	FM REPEATER OUTPUT	RM0 (1297.000) 25 KHz spacing RM19 (1297.475)
1297.481	12 kHz	FM c)	SM20 (1297.500) <b>(25 KHz spacing - SIMPLEX)</b> 1297.500 FM centre of activity <b>(25 KHz spacing - SIMPLEX)</b> SM39 (1297.975)
1297.981			
1298.000	20 kHz	ALL MODES	1298.025-1298.500 Repeater output channel freqs, ch. RS1 -- RS28  1298.500-1300.000 Digital communications (within RS channels) d)  1298.725-1299.000 Packet-Radio duplex channel freqs, ch. RS29 -- RS40
1300.000			

## NOTES ON THE 1240 - 1300 MHz BANDPLAN

### 1. IARU REGION 1 BANDPLAN

The following notes are part of the IARU Region 1 bandplan for this band, originally adopted during the IARU Region 1 Conference at Noordwijkerhout (1987), and all member societies should strongly promote adherence to the recommendations made in these notes.

For the specification of FM see section VIb

#### 1.1. Footnotes

- a. Deleted
- b. Within IARU Region 1 the frequencies for beacons with an ERP of more than 50 Watts are coordinated by the IARU Region 1 Beacon Coordinator (see section IX).
- c. In countries where 1298 - 1300 MHz is not allocated to the Amateur Service (e.g. Italy) the FM simplex segment may also be used for digital communications.
- d. **Bandwidth limits according to national regulations.**

### 2. USAGE

The following note refers to the Usage column in the bandplan. As already set out in the introduction to section IIc, in the right amateur spirit operators should take notice of these agreements which are made for operating convenience, but no right to reserved frequencies can be derived from a mention in the Usage column.

## 2.1. General

During contests and bandopenings local traffic using narrow-band modes should operate between 1296.500 - 1296.800 MHz.

### **DV05\_C5\_Rec\_05**

***The following footnote will be added to the 145 MHz bandplan:***

***Footnote i: It is recognised that in the IARU Region 1 rules for the Championships in Amateur Radio Direction Finding (ARDF) competitions, the frequencies for the unmanned beacons are in the segment 144.500 – 144.900 MHz. These beacons run low power and are on the air only during ARDF events.***

***The existing footnote f will be amended to read:***

***Footnote f: No unmanned stations shall use the all-mode segment, except for linear transponders and ARDF beacons. (Tel Aviv 1996, San Marino 2002)***

### **DV05\_C5\_Rec\_06**

***QSOs via Meteor Scatter have to be subject to the operating procedures as given in Annex Rec 06-A:***

## **Annex Rec 06-A:**

# **OPERATING PROCEDURE FOR METEOR SCATTER QSOS**

## 1. INTRODUCTION

The goal of the procedures described is to enable valid contacts to be made by meteor scatter (MS) reflection as quickly and easily as possible. Meteor scatter is unlike most other propagation modes, in that neither station can hear the other until an ionised meteor trail exists to scatter or reflect the signals. As the reflections are often of very short duration the normal QSO procedure is not readily applicable and specialised operating techniques must be taken to ensure that a maximum of correct and unmistakable information is received. The two stations have to take turns to transmit and receive information in a defined format, following the procedures as detailed below. Some meteor showers are strong enough to make some of these measures unnecessary but to encourage use of all generally listed showers there is no reason why the suggested procedures should not always be used. As with operating procedures in general, the virtues of the MS operating procedures are mainly that they are standard and are widely understood throughout IARU Region 1.

## 2. SCHEDULED AND RANDOM CONTACTS

Two types of MS contacts, arranged in different ways, may be distinguished:

- a. A scheduled contact, where two interested stations arrange in advance the frequency, timing, transmission mode, e.g. Telegraphy, SSB or MGM and call signs to be used. Scheduling may be carried out by exchange of letters or e-mail, by radio via the European VHF Net on 14,345 MHz, by Internet chat-rooms, packet-radio etc.
- b. A non-scheduled contact, where a station calls CQ or responds to a CQ call, are called "random contacts". Random contacts are far more difficult and because you are starting entirely from scratch, it is particularly important for both stations to follow the standard meteor scatter QSO procedures described in this document.

## 3. TIMING

Prior to any MS activity it is absolutely vital that clocks need to be set to better than 1 second of standard time. Any clock inaccuracy will result in wasted time. Accurate timing of transmit and receive periods is important for two reasons: 1) to maximise the chances of hearing the other station, and 2) to avoid interference between local stations. Accurate timing can be accomplished for example by checking against the time-ticks on standard frequency transmissions, TV Teletext, telephone 'speaking-clock', GPS time signals or the Internet.

The recommended time periods for the different modes are:

- Telegraphy: 2.5 minutes periods.
- SSB: 1 minute periods.
- MGM: 30 seconds periods.

This practice gives quite satisfactory results. However developing technology make it possible to use much different periods and amateurs may wish to arrange 1 minute periods for Telegraphy and shorter periods for SSB and MGM especially during major showers. If non-recommended time periods are used the first priority is to avoid causing interference to local stations that are using the recommended periods.

Even though the recommended period for SSB contacts is 1 minute periods a quick-break procedure making a break every 10-15 seconds, in case the QSO can be completed within one long burst, are encouraged during major meteor showers.

#### 4. TRANSMIT PERIODS

In order to minimise the overall interference with other stations standard transmit periods are recommended. Station in central and western Europe should use second period.

All MS operators living in the same area should, as far as possible, agree to transmit simultaneously in order to avoid mutual interference.

#### 5. QSO DURATION

Every uninterrupted QSO period must be considered as a separate trial. This means that it is not permissible to break off and then continue the contact at a later time.

#### 6. FREQUENCIES

##### a. Scheduled contacts

These contacts may be arranged on any frequency, taking into consideration the mode and band plan. Scheduled contacts must not use known popular frequencies and the random MS frequencies. Special care should be applied on the frequency selection to avoid interference when using reverse transmit periods according to your location.

##### b. Random contacts

The frequency used for CQ calls for random contacts should be according to the IARU Region 1 bandplans.

#### 7. QSY FREQUENCIES FOR MGM

To avoid -interference, which results from a large number of stations attempting to complete contacts on the various MS calling frequencies, a QSY method is recommended. During the CQ the caller indicates on which frequency he/she will listen for a reply and carry out any subsequent QSO. The procedure for moving a beginning QSO off the calling frequency without losing contact is as follows.

If an operator wants to call CQ the following QSY procedure should be used:

- 1) Select the frequency to be used for a QSO by checking whether it is clear of traffic and QRM.
- 2) In the CQ call, immediately following the letters "CQ", kHz is inserted to indicate the frequency that will be used for reception when the CQ call finishes.

3) During the receiving period the receiver should be tuned to the frequency indicated by the letter used in the CQ call.

4) When the caller receives a signal on the receiving frequency indicated during the call and identifies the reply as an answer on his CQ, the transmitter is moved to the same receiving frequency and the whole QSO procedure takes place there.

If an operator instead of calling CQ wishes to listen for a CQ call the following QSY-procedure should be used:

1) Listen on a random contact frequency.

2) When a CQ call is received, note the kHz-frequency, which follows the letters "CQ" in the call. From this find the correct receiving frequency which the calling station will use for receiving replies.

3) QSY the transmitter to the receiving frequency, and transmit a reply during the appropriate period. The format for the reply can be found in section 8.

4) As the QSO will take place on this frequency, continue to transmit and to listen, during the appropriate periods, on this frequency. It may be that the station calling CQ will not hear your first reply, but may do so during one or more subsequent periods. Hence there is no need to return to the calling frequency.

The QSY frequencies should take place in the segment according to the IARU Region 1 bandplans.

a. MGM, kHz-frequency

Users of MGM indicate the frequency they intend to carry out the QSO by adding the three digits of the absolute frequency, i.e. the kHz-frequency. For example CQ383 indicates that the station will listen on 144,383 MHz for a subsequent contact.

Example: G4ASR wishes to try a random MS experiment on MGM and wants to start with calling CQ. He first checks his receiver in the MGM range of 144,360 MHz to 144,397 MHz and finds a clear frequency on 144,394 MHz. He calls CQ on 144,370 MHz, and he must now add the kHz-frequency to his CQ call to indicate on which frequency he intends to listen. In this example he will therefore call "CQ394" in his CQ call.

Example: You receive PA2DW who is calling "CQ274" on the 50 MHz random frequency. This tells you that PA2DW will listen on exactly 50,274 MHz.

b. CW/SSB

This proposal does not describe any procedures for QSY operation on CW/SSB anymore.

## 8. QSO PROCEDURE

All modes use the same MS-QSO procedure.

When attempting random SSB contacts, speak the letters clearly, using phonetics where appropriate.

a. Calling

The contact starts with one station calling the other by sending both call signs.

b. Reporting system

The report consists of two numbers:

First number (burst duration)	Second number (signal strength) S-units	S/N
----------------------------------	--	-----

2 : up to 0,5 s	6 : below S2	or	below 5 dB
3 : 0,5 - 1 s	7 : from S2 to S3	or	from 5 dB to 10 dB
4 : 1 - 5 s	8 : from S4 to S5	or	from 10 dB to 15 dB
5 : longer than 5 s	9 : above S5	or	above 15 dB

Note that the number "1" is not used as the first number/burst duration.

Maximum duration of a ping (Underdense Reflection):

Band	Duration
50 MHz	1000 ms
70 MHz	500 ms
144 MHz	100 ms
432 MHz	13 ms

This means that the duration of bursts (Overdense Reflections) are longer than the above ping durations.

#### c. Reporting procedure

A report is sent when the operator has positive evidence of having received the correspondent's or his own callsign or parts of one of them.

The report should be sent twice between each set of call signs.

The report must not be changed during a contact even though signal strength or duration might well justify it.

#### d. Confirmation procedure

1) As soon as either operator copies both call signs and a report he may start sending a confirmation. This means that all letters and figures have been correctly received.

The message can be pieced together from fragments received over several bursts and pings, but it is up to the operator to ensure that it is done correctly and unambiguously.

Confirmation is given by inserting an R before the report.

2) When one operator receives a confirmation message, such as "R27", and all required information is complete he must confirm with a string of R's, inserting his own call sign after at least 3 R's. When the other operator has received the R's, the contact is complete and he may respond in the same manner.

#### e. Requirements for a complete QSO

Both operators must have copied both call signs, the report and a confirmation that the other operator has done the same. This confirmation can either be an "R" preceding the report or a string of minimum three consecutive "RRR".

### 9. VALID CONTACTS

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

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

### 10. DOCUMENT HISTORY:

This procedure was adopted at the IARU Region 1 Conference in Miskolc-Tapolca (1978), later slightly amended at the IARU Region 1 Conference in Noordwijkerhout (1987), Torremolinos (1990), de Haan (1993), San Marino (2002) and Vienna (2004).

**DV05\_C5\_Rec\_07**

**In the 145 MHz bandplan the MGM segment of 144.135 – 144.165 MHz shall be extended to be 144.110 – 144.180 MHz. The relevant part of the 145 MHz Bandplan is shown in Annex Rec 07-A:**

Frequency (MHz)	Maximum BW	Mode	Usage
144,000 144,110	500 Hz	Telegraphy (a)	144,000 –144,035 EME 144,050 Telegraphy calling 144,100 Random MS (m)
144,110 144,150	500 Hz	Telegraphy, MGM	144,138 PSK31 activity centre 144,120 – 144,150 EME MGM (JT65)
144,150 144,180	2700 Hz	Telegraphy, SSB, MGM	144,150 – 144,160 FAI & EME activity 144,160 – 144,180 Alternative MGM allocation (m) 144,170 Alternative MGM calling frequency
144,180 144,360	2700 Hz	Telegraphy, SSB	144,195 – 144,205 MS SSB 144,200 Random MS SSB calling frequency 144,300 SSB calling frequency
144,360 144,399	2700 Hz	Telegraphy, SSB, MGM	144,370 MGM calling frequency (m)

a) Telegraphy is permitted over the whole band, but preferably not in the beacon band;  
Telegraphy exclusive between 144.000 - 144.110MHz.

**DV05\_C5\_Rec\_08**

- 1) In accordance with the IARU principle of using Primary and Primary Exclusive allocations in preference to secondary allocations, it is recommended that Amateur and Amateur Satellite weak-signal operation should, wherever possible, use the 500 MHz segment 75.5 GHz to 76.0 GHz as per CEPT Footnote EU35 in the European Frequency Tables. Region 1 societies in CEPT countries should encourage their administrations to implement EU35 as soon as possible. The IARU bandplan should be amended accordingly.**
- 2) In the bands above 76 GHz, for example 241 GHz, users are encouraged to use the Primary Exclusive allocations.**

**Annex Rec 08-A:**

**76 GHz bandplan**

**75.50-81.50 GHz BANDPLAN ( San Marino 2002 )**

IARU Region 1 bandplan	Usage
75.500 AMATEUR SATELLITE SERVICE & ALL MODES  (Preferred [1])  76.000	75976.200 MHz : Preferred Narrow band centre of activity

<b>76.000</b>	ALL MODES (not preferred) [2]	76032.200 MHz :Narrow Band Centre of activity in some countries
<b>77.500</b>	AMATEUR SATELLITE SERVICE & NARROW BAND MODES  (non-preferred / preferred)[3]	77500.200 MHz: Preferred NB centre of activity in countries outside the CEPT area
<b>77.501</b>	ALL MODES (Preferred segment)	
<b>78.000</b>	ALL MODES (not preferred)	
<b>81.500</b>		

#### Footnotes

1. Preferred in those CEPT countries having implemented EU35.
2. Between 77.5 and 78 GHz the amateur and amateur satellite service have a primary/exclusive status and a primary status through ECA footnote EU35 in CEPT countries, while the status is secondary in the remainder of the allocation.  
The all mode section in the secondary segment should only be used in case the preferred segment cannot be used
3. Preferred in those countries not having implemented EU35

**The following text will replace the existing ones on IARU Region 1 VHF, UHF/Microwaves and 50 MHz contest rules.**

IARU Region 1 has organised official international contests on the VHF/UHF/Microwaves bands since 1956, when an all-band contest during the first weekend of September was established.

In 1962 a separate UHF/Microwaves contest was added, which was initially held during the last weekend of May (decision Turin, 1961). From 1970 onwards this date was set at the first weekend of October (Brussels, 1969).

As of 1970 an SWL contest was established, to be run concurrently with the official Region 1 VHF and UHF/Microwaves contests.

During the IARU Region 1 Conference in Scheveningen (1972) it was decided that as of 1973 the September contest would only be held on 145 MHz.

At the IARU Region 1 Conference in Noordwijkerhout (1987) an IARU Region 1 ATV contest was added, to be held during the second weekend of September.

Finally, at the IARU Region 1 Conference in De Haan (1993) an official 50 MHz contest was established, to be held as from 1994 during the first weekend of June. In San Marino 2002 the date was changed into the third weekend of June.

Hence, currently four official IARU Region 1 contests are organised annually :

1. The VHF contest during the first weekend of September - only on 145 MHz;
2. The UHF/Microwaves contest during the first weekend of October on 435 MHz and higher bands;
3. The ATV contest during the second weekend of September;
4. The 50 MHz contest during the third weekend of June.

Member societies of IARU Region 1 organise and judge the results of the above contests.

The procedures for the organisation of the VHF and UHF/Microwaves contests are set out in Appendix 1. A list of IARU Region 1 member societies, which have organised these contests or will do so in the near future can be found in Appendix 2.

The September IARU Region 1 ATV contest is organized and judged by a member society in a country where ATV transmissions are authorized.

The rules for the official Region 1 contests are set out in sections IIIb (145 MHz), IIIc (UHF/Microwaves), IIIe (ATV) and IIIf (50 MHz).

N.B. Attention is drawn to the fact that since 1974 during the first weekend of November the Italian member society ARI organises the Marconi-Memorial Telegraphy contest as an international contest for the whole of Region 1. This contest, run according to the rules of the official Region 1 contests, is judged by the ARI VHF Committee, and the results are distributed to all participating countries via the VHF Managers of the member societies. *This ARI contest replaces the former IARU Region 1 Telegraphy contest.*

### **IIIa - Appendix 1**

#### **PROCEDURE FOR ORGANISING IARU REGION 1 VHF/UHF/MICROWAVES CONTESTS**

A. In January of each year the Chairman of the VHF/UHF/Microwaves Committee shall send a letter to the societies organising the IARU Region 1 VHF, UHF/Microwaves, 50 MHz and ATV contests in that year, containing an up-to-date copy of the rules for these contests.

B. After receipt the organising societies shall distribute these rules (e.g. in the form of a printed booklet) together with an invitation to participate in the contests to all IARU Region 1 member societies. The invitation shall contain details on where to send the logs etc. This shall be done before the end of March of that year.

C. Not later than the seventh Sunday after the contest the national VHF Manager or properly nominated Contest Committee shall forward to the society organising the contest one copy of each entry, after having examined the logs and after having certified those to be acceptable to the best of their knowledge. Stations operating temporarily outside their "home-country" are for the purpose of the contest participating as stations in the country where they operate and their logs must be submitted to the VHF-Manager/Contest Committee of that country. Logs sent to the contest committee of their home country shall not be submitted to the adjudicating society!

D. In order to obtain the most important results as quickly as possible the following checking procedure shall be followed:

The VHF Manager or properly nominated Contest Committee in each country shall verify the details of each participating station (callsign, locator, band, section, having obeyed the rules ...)

Upon completion, the logs shall be sent to the organising society, separated in sections (bands, where applicable).

E. Two weeks shall be allowed for transit to the organising society and thus all national contributions should be in by the ninth Sunday after the contest weekend.

F. The organising society shall allow a margin of three weeks for possible postal delays and shall declare the entry closed on the twelfth Sunday after the contest weekend. Entries received after this date shall be returned to sender or -if agreed by the sender by mail or fax- be destroyed.

G. The organising society shall publish the results based on the claimed scores not later than thirteenth Sunday after the contest on their web site. The organising society will perform full computer/automatic cross check on all the received logs and will publish the final results not later than fourteenth Sunday after the contest on their web site. The list of results should include at least the following data: call sign, Locator, score, number of QSOs, number of deleted QSOs, percentage of deleted points, ODX call sign, ODX Locator and ODX QRB. The organising society shall judge the contest and publish the official results on their web site and send the results to the Webmaster of the IARU Region I web site for publication. These results shall also be sent in electronic format to all VHF Managers and/or Contest Committees of Societies who sent logs and also to the Chairman of Region 1 VHF/UHF/Microwave Committee, not later than two months after the date mentioned in F. above (e.g. not later five months after the contest took place). Optionally certificates for all participants may be provided for distribution by national societies. See also section III m.

H: All QSOs including unique QSOs shall count for points even if they only appear in the log of one contest entrant.

### **III b**

#### **RULES IARU REGION 1 145 MHz SEPTEMBER CONTEST**

##### **1. Eligible entrants**

All licensed radio amateurs in Region 1 may participate in the contest. Multiple operator entries will be accepted, provided only one callsign is used during the contest. The contestants must operate within the letter and spirit of the contest and at no greater power than permitted in the ordinary licenses of their country. Stations operating under special high power licenses do so "hors concours" and cannot be placed in the contest proper.

Stations operating temporarily outside their "home-country" are for the purpose of the contest participating as stations in the country where they operate and their logs must be submitted to the VHF-Manager/Contest Committee of that country. Logs sent to the Contest Committee of their home country shall not be submitted to the adjudicating society.

##### **2. Contest sections**

The contest shall comprise the following sections :

i) Stations operated by a single operator, with no assistance during the contest.

ii) All other entrants

No more than one transmitter may be in use at any one time. All the equipment of the station (transmitters, receivers and antennas, etc) must be located within a single circle of no greater than 500 metres diameter. A participating station must operate from the same location throughout the event.

##### **3. Date of contest**

The contest shall start on the first Saturday of September.

##### **4. Duration of contest**

The contest shall commence at 1400 hours UTC on the Saturday and end at 1400 hours UTC on the Sunday.

##### **5. Contacts**

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

##### **6. Type of emission**

Contacts may be made in A1A J3E or F3E(G3E).

##### **7. 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 and increasing by one for each successive contact. This exchange must immediately be followed by the complete Locator of the sending station (examples : 59003 JO20DB or 579123 IN55CC).

Note: for the "T" part of the report, see section VI b

##### **8. Scoring**

Points shall be scored on the basis of one point per kilometre, i.e. the calculated distance in kms will be truncated to an integer value and 1 km will be added. The centre of each locator square is used for distance calculations. In order to make contest scores comparable, for the conversion from degrees to kilometres a

factor of 111.2 should be used when calculating distances with the aid of the spherical geometry equation (Noordwijkerhout, 1987).

#### 9. Entries

The entries must be set out in digital/electronic form fulfilling the requirements under rule 12. 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.

#### 10. Judging of entries

The final judging of the entries shall be the responsibility of the organising 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.

Claiming points for a duplicate contact shall be penalised by deducting ten times the number of points claimed for that duplicate contact from the score.

Any error in the information logged by a station shall result in the loss by the receiving station of all points for that contact.

#### 11. Awards

The winner in each section shall receive a certificate.

#### 12. Logs

The logs shall be in the format defined in Section IIIh.

See also section IIIaa1, item D

### **IIIc**

#### **RULES IARU REGION 1 UHF/MICROWAVES OCTOBER CONTEST**

##### 1. Eligible entrants

All licensed radio amateurs in Region 1 may participate in the contest. Multiple operator entries shall be accepted, provided only one callsign is used during the contest see footnote 1). The contestants must operate within the letter and spirit of the contest and at no greater power than permitted in the ordinary licenses of their country. Stations operating under special high power licenses do so "hors concours" and cannot be placed in the contest proper.

Stations operating temporarily outside their "home-country" are for the purpose of the contest participating as stations in the country where they operate and their logs will have to be submitted to the VHF-Manager/Contest Committee of that country. Logs sent to the contest committee of their home country shall not be submitted to the adjudicating society!

##### 2. Contest sections

i) Stations operated by a single operator, with no assistance during the contest.

ii) All other entrants

For 432 MHz and for the higher frequency amateur bands up to 10 GHz inclusive there will be two sections, as defined above. Furthermore, there will be two sections, as defined above, for the combined group of amateur bands above 10 GHz, the so-called millimetre group (see footnote 2).

No more than one transmitter per band may be in use at any one time. All the equipment of the station (transmitters, receivers and antennas, etc) must be located within a single circle of no greater than 500 metres diameter. "

A participating station must operate from the same location throughout the event.

##### 3. Date of contest

The contest will start on the first Saturday of October.

##### 4. Duration of contest

The contest will commence at 1400 hours UTC on the Saturday and will end at 1400 hours UTC on the Sunday.

##### 5. Contacts

Each station can be worked only once per band, whether it is fixed, portable or mobile. If a station is worked again during the same contest and on the same band, only one contact will 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.

## 6. Type of emission

Contacts may be made in A1A J3E or F3E (G3E).

## 7. 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).

Note: for the "T" part of the report, see section Vib.

## 8. Scoring

For the amateur bands up to 10 GHz inclusive, points will be scored on the basis of one point per kilometre, i.e. the calculated distance in kms will be truncated to an integer value and 1 km will be added. The centre of each locator square is used for distance calculations. In order to make contest scores comparable, for the conversion from degrees to kilometres a factor of 111.2 should be used when calculating distances with the aid of the spherical geometry equation (Noordwijkerhout, 1987).

For the combined higher bands the score will be the sum of the points scored on each of the bands, using the following multiplication factors for the number of kilometres scored on each band :

24 Ghz 1 x	120 GHz 5 x
47 GHz 2 x	145 GHz 6 x
75/80 GHz 3 x	245 GHz 10 x

## 9. Entries

The entries must be set out in digital/electronic form fulfilling the requirements under rule 12. 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.

## 10. Judging of entries

The final judging of the entries shall be the responsibility of the organising 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 will be disqualified for any error in the information logged by the station.

Claiming points for a duplicate contact will be penalized by deducting ten times the number of points claimed for that duplicate contact from the score.

Any error in the information logged by a station will result in the loss by the receiving station of all points for that contact.

## 11. Awards

### **Section winners**

Certificates will be issued by the organising society to the winners in the two sections on each band.

### **Overall winners**

For each section an overall winner of the IARU Region 1 UHF/Microwaves contest will be declared. For this competition the scores of the entrants on the following bands 3) will be combined, using an adaptive multiplier system:

435 MHz
1.3 GHz
2.4 GHz
5.7 GHz
10 GHz
millimetre group

The multipliers to be used for the determination of the overall scores in each section are found as follows:

The multiplier is equal to the ratio between the highest number of points scored by **any** participating station on the 435 MHz band for that section and the highest number of points scored by **any** participating station on the band for that section for which the multiplier is being determined.

For the millimetre group the scores as determined according to rule 8 are used for the determination of this group's multiplier.

The entrants scoring highest in each section will be awarded the IARU REGION 1 CERTIFICATE. The organising 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 of the two sections.

## 12. Logs

The logs shall be in the format defined in Section IIIh. See also section IIIaa1, item D

### Footnotes:

- 1) Multi-operator entries are accepted for participation. When such stations use a different call sign on each band, the logs of that Multioperator entry shall for each band clearly bear an indication of the group. This will preferably be one of the call signs used, but a group name may be used instead. All stations belonging to such a group shall operate from the same location, i.e. All the equipment of the stations (transmitters, receivers and antennas, etc) must be located within a single circle of no greater than 500 metres diameter. “
2. The millimetre group was introduced during the meeting of the VHF Working Group in Vienna, March 1986, with the aim of promoting the use of these Amateur Service bands. In October 1987 this extended rule was applied for the first time.
- 3 As the 3.4 GHz band is not yet available in all countries within Region 1, the 3.4 GHz results will not be taken into account when determining the overall winners of the sections in the October IARU Region 1 UHF/Microwaves contest (Noordwijkerhout 1987 )

## 1f

### **RULES IARU REGION 1 50 MHz JUNE CONTEST**

#### 1. Eligible entrants

All licensed radio amateurs in Region 1 who are authorized to use 50 MHz can participate in the contest. Multiple operator entries will be accepted, provided only one callsign is used during the contest. The contestants must operate within the letter and spirit of the contest and at no greater power than permitted in the ordinary licenses of their country. Stations operating under special high power licenses do so "hors concours" and cannot be placed in the contest proper. Stations operating temporarily outside their "home-country" are for the purpose of the contest participating as stations in the country where they operate and their logs will have to be submitted to the VHF-Manager/Contest Committee of that country. Logs sent to the contest committee of their home country shall not be submitted to the adjudicating society!

#### 2. Contest sections

The contest will comprise the following sections :

- i) Stations operated by a single operator, with no assistance during the contest.
- ii) All other entrants

No more than one transmitter may be in use at any one time. All the equipment of the station (transmitters, receivers and antennas, etc) must be located within a single circle of no greater than 500 metres diameter.

#### 3. Date of contest

The contest will begin on the third Saturday of June.

#### 4. Duration of contest

The contest will commence at 1400 hours UTC on the Saturday and will end at 1400 hours UTC on the Sunday.

#### 5. Contacts

Each station can be worked only once, whether it is fixed, portable or mobile. If a station is worked again during the same contest, only one contact will 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. Any telephony contacts made with stations transmitting in the telegraphy sub band shall not count for points.

#### 6. Type of emission

Contacts may be made in A1A, J3E or F3E (G3E).

#### 7. 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 and increasing by one for each successive contact. This exchange must immediately be followed by the complete Locator of the sending station (examples : 59003 JO20DB or 579123 IN55).

Note: for the "T" part of the report, see section Vib

#### 8. Scoring

Points will be scored on the basis of one point per kilometre, i.e. the calculated distance in kms will be truncated to an integer value and 1 km will be added. The centre of each locator square is used for distance calculations. In case only a 4-character locator has been received, the distance calculated should be the shortest distance between the claiming station and the given Locator square.

In order to make contest scores comparable, for the conversion from degrees to kilometres a factor of 111.2 should be used when calculating distances with the aid of the spherical geometry equation (Noordwijkerhout, 1987).

#### 9. Entries

The entries must be set out in digital/electronic form fulfilling the requirements under rule 12. 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.

#### 10. Judging of entries

The judging of the entries shall be the responsibility of the organising society, whose decision shall be final. Entrants deliberately contravening any of these rules or flagrantly disregarding the IARU Region 1 bandplans shall be disqualified (see footnote 1) on monitoring.

The claimed contact will be disqualified for any error in the information logged by the station.

Claiming points for a duplicate contact will be penalized by deducting ten times the number of points claimed for that duplicate contact from the score.

Any errors in the logged information will result in the loss of all points for that contact by the receiving station.

#### 11. Awards

The winner in each section will receive a certificate.

#### 12. Logs

The logs shall be in the format defined in Section IIIh. See also section IIIa1, item D. (See footnote 2)

#### Footnotes :

1 At the IARU Region 1 Conference in Scheveningen (1972) it was decided that to effect this:

a) 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.

b) telephony contacts made with stations operating in the telegraphy sub band shall not count for points.

c) the national VHF Manager/Contest Committee is responsible for disqualification based upon the results obtained from a) and b) above.

2 Contest entries for the year 2006 may still be submitted on paper logsheets.

#### IIIh

##### **ELECTRONIC LOG EXCHANGE**

At its meeting in Vienna 1998 the VHF/UHF/Microwaves Committee has recommended the use of the Electronic Contest Log distribution format for the exchange of log information concerning IARU Region 1 Contests. This recommendation has been endorsed by the IARU R1 EC at its 1998 meeting.

The aim of the common file format is to make contest log programmers able to deliver a standard output file from their programs, to enable contest managers to receive logs via data transfer system (e.g. diskettes, Internet) introduce electronic log processing and ease submission for participants.

What media to use is not specified, and is up to the contest manager. If Internet is a reliable medium it is a good choice, however, that does not solve yet the legal issue with the responsible operators signature yet required for IARU Region 1 contests.

When a contest manager invites to a contest she/he should state if electronic log submission is possible, in what way (e.g. diskette, INTERNET) and where (managers E-mail address), just like own mailing address. Contest managers must have a validation program to make a complete validation including cross checking etc.

Contest participants can use the electronic data file format to submit their logs to the contest manager in time. To be able to do this, participants must use a contest program capable of generating a REG1TEST file.

The details are given in annex IIIh-a1

*Note : Many logging programmes do not yet accept a non-numeric character for the T part of the report. Users shall check this according to the recommendation in section VI*

**DV05\_C5\_Rec\_10**

***It is recommended that the national societies will run their ATV contests at the same time as the IARU Region 1 ATV contest takes place (1800 UTC – 1200 UTC).***

**DV05\_C5\_Rec\_11**

***The Region 1 listeners contest on VHF/UHF/Microwaves shall be discontinued.***