



# 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 – Minutes of Meeting 03</b>	
<b>Society</b>		<b>IARU Region 1</b>	<b>Country:</b>
<b>Committee:</b>	<b>C5</b>	<b>Paper number:</b>	<b>DV05_C5_meeting 3 Minutes</b>

PA0EZ chaired the meeting.

Daily proxies:

- URE for URA (Andorra)
- ÖVSV for USKA (Switzerland)
- CRC for SARA (Slovakia)
- SARL for MRASZ (Hungary)

### 5b. Records coordinator (continuation from the day before yesterday)

Recommendation DV05\_C5\_Rec\_02 on the model of the earth in distance calculations for the Records Table was made on the first day under agenda point 5. An expert pointed out later, that WGS-84 is a datum and as such does not include a fixed model for the earth for distance calculation. It was also pointed out that there needs to be coordination on this matter between the record keeper and the testers. Therefore the Recommendation DV05\_C5\_02 was deleted.

### 7. Operational matters (continuation from yesterday)

DV05\_C5\_20 by VERON and DV05\_C5\_39 by ÖVSV both propose to amend the meteor scatter procedures to better accommodate the quickly evolving MGMs. An ad-hoc working group convened by PA2KW merged the best parts of both proposals into DV05\_C5\_44. After some remarks, the meeting accepted these changes to be the Region 1 procedures for meteor scatter.

### See recommendation DV05\_C5\_Rec\_06

### 8. Technical matters (continuation from the day before yesterday)

An ad-hoc working group of ZS5JF, OZ7IS and G4ASR discussed beacon matters. They proposed that the guidelines for beacon keeping should be clarified. They had put their ideas into document DV05\_C5\_45 revised. The meeting found this document to be useful and requested the chairman to include it in the next revision of the VHF handbook.

**Action Chairman**

### 9c. 145 MHz (continuation from yesterday)

DV05\_C5\_39 by ÖVSV proposes a second allocation for MGM used for meteor scatter to avoid interference problems due to the need for different transmitting periods within a local area. An ad-hoc working group created a proposal on possible band plan changes into 145 MHz band. This proposal is in DV05\_C5\_46. In the proposal the MGM segment 144.135 – 144.165 MHz is to be extended to 144.110 – 144.180 MHz.

### See recommendation DV05\_C5\_Rec\_07

## **9e. Microwaves**

Documents concerning 76 GHz band (DV05\_C5\_25, DV05\_C5\_38 and DV05\_C5\_41) were first discussed in an ad-hoc microwaves working group convened by G3PFR. The result is a slightly revised 76 GHz bandplan.

### **See recommendation DV05\_C5\_Rec\_08**

DV05\_C5\_10 concerning common narrowband segments in the secondary microwave bands was introduced by EDR. The document was produced to revive discussion in the microwaves community on the need of common allocations. RSGB agreed that a discussion should indeed take place. RSGB is willing to start this work within the microwaves group in UK. They will also invite other societies (for example DARC and SSA) to take part in this process. VHF newsletter will follow this process.

### **Action G3PFR, Chairman**

DV05\_C5\_18 concerning Digital ATV on the 1.3 GHz band was introduced by UBA. This issue was accepted already in Vienna 2004 interim meeting.

DV05\_C5\_33 is a document by the chairman about the possible need for coordination of amateur radio activities above 300 GHz. A lively discussion on this matter took place on activities on bands over 300 GHz in different countries where also national regulations are different. Some countries allow the use of all frequencies above 300 GHz without any licence, some others do not allow it at all. Optical communications in the 300 – 3000 THz frequencies is taking place in some countries. At the moment there is no need for IARU coordination on this area.

DV05\_C5\_13 is an information paper on the Galileo satellite system by RSGB. This document is explaining well how Galileo might in the future affect amateur radio operations in the 1.3 GHz band.

## **10. Contests**

### **10.a. Rules/Procedures general**

An ad-hoc working group chaired by OE1MCU spent two evening meetings to merge the proposals in documents DV05\_C5\_11 by EDR, DV05\_C5\_08 by EDR, DV05\_C5\_03 by EDR, DV05\_C5\_34 by PZK, DV05\_C5\_36 by ZRS and DV05\_C5\_37 by ZRS. The result of their work is in document DV05\_C5\_48. ON6TI introduced this document.

These changes will become effective from 1 September 2006.

The following documents will be deleted from the handbook:

- III b appendix 1 (145 MHz summary sheet)
- III c appendix 1 (UHF/MW summary sheet)
- III d appendix 1 (50 MHz summary sheet)
- III d (SWL contest)

### **See recommendation DV05\_C5\_Rec\_09**

### **10.b. Rules ATV contest**

DV05\_C5\_22 version 2 was introduced by VERON. Times for the national ATV contests should be concurrent with the IARU Region 1 ATV contest (1800 UTC – 1200 UTC). The meeting agreed.

### **See recommendation DV05\_C5\_Rec\_10**

### **10.c. Listeners contest**

Documents DV05\_C5\_27 by chair and DV05\_C5\_35 by ZRS are both proposing that due to the lack of participants there is no need to continue organising Region 1 VHF/UHF/Microwaves contests. This issue was taken up in the ad-hoc working group on contests. The meeting agreed with the working groups proposal to discontinue the Region 1 VHF/UHF/Microwaves SWL contest.

**See recommendation DV05\_C5\_Rec\_11**

### **10.d. Adjudicating societies 2006 onwards**

Following societies volunteered to organise the contests in the coming years:

Year:	VHF	UHF/Microwaves	50 MHz	ATV
2006	CRC	REF	VERON	UBA
2007	MRASZ	CRC	PZK	DARC
2008	HRS	RSGB	ZRS	RSGB

### **11. Election of candidates for a chairman and a vice chairman for the VHF/UHF/MW Committee**

SARL proposed OE1MCU as the candidate to be put forward to the final plenary. Michael was supported by several societies. There was no society against so OE1MCU was unanimously nominated to be the candidate for the Chairman.

VERON proposed OZ7IS as the Vice Chairman for Committee C5. Ivan was elected unanimously.

### **12. Interim meeting**

Everybody agreed that an Interim meeting is needed. ÖVSV is willing to organise this meeting around February-March 2007.

**Action Chairman, ÖVSV**

### **13. Any other matter**

UBA presented an information paper on Radio Gateways. DARC suggested the use of microwave bands whenever frequencies for radio gateways are needed. EDR noted that national regulations are different in different countries.

CRC presented their views on how the lower part of the 145 MHz band should be organised. The lively discussion that followed is probably an indicator that CRC will bring their ideas to the interim meeting as a proposal.

Chairman noted that the VHF Handbook needs to be revised. PA0EZ, G3PFR, OZ7IS, G4ASR and ZS5JF have volunteered to start this work.

REF shared the meeting with their views on contest operating. REF will write a proposal for the next meeting on good operating practices in contests.

Final note from the secretary: During this three day long meeting of C5, not once was it necessary to take a vote on a proposal. Every time that there were conflicting proposals or interests the matter was first discussed in an ad-hoc working group before discussing it in C5 meeting.

### **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 callsigns, 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 callsigns, the report and an unambiguous confirmation. However no recourse should be made during the contact to obtain the required information, change of frequency, antenna direction, etc. via other methods such as the 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
<p style="text-align: center;"><b>75.500</b> AMATEUR SATELLITE SERVICE &amp; ALL MODES  (Preferred [1])</p> <p>76.000</p>	75976.200 MHz : Preferred Narrow band centre of activity
<p>76.000</p> <p style="text-align: center;">ALL MODES (not preferred) [2]</p> <p>77.500</p>	76032.200 MHz :Narrow Band Centre of activity in some countries
<p>77.500</p> <p style="text-align: center;">AMATEUR SATELLITE SERVICE &amp; NARROW BAND MODES  (non-preferred / preferred)[3]</p> <p>77.501</p>	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>	
<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

### DV05\_C5\_Rec\_09

#### **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 IIIm.

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

### **IIIb**

## **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 VIb

### **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 IIIaa1, 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.**