



# 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 01</b>	
<b>Society</b>		IARU Region 1	<b>Country:</b>
<b>Committee:</b>	C5	<b>Paper number:</b>	DV05_C5_meeting [01] Minutes

## VHF/UHF/Microwaves Committee Report

### 1. Opening

The Chairman, PA0EZ, opened the meeting at 0915 on Monday 12th Sep 2005. He mentioned that this would be his last meeting as the Chairman of C5.

**1a. A check on documentation** was made to ensure that all participants had all necessary documents available (DV05\_C5\_00rev6). Documents 42 and 43 were missing from the list, will be added to the final version of the agenda.

**1b. Adoption of Agenda.** Document DV05\_C5\_12 is for info only since the matter of setting up a Vice Chairman is out of our competence. It will be combined with DV05\_C3\_45 and handled by C3 Committee. DV05\_C5\_17 is not for information only, it contains proposals. DV05\_C5\_43 added to agenda point 9a and DV05\_C5\_42 to agenda point 9b. A new agenda point 12 (Interim meeting, yes/no? where? when?) was added thus moving original point 12 to be agenda point 13.

The Agenda was then otherwise approved as distributed, and the final version can be found at Appendix 1 (DV05\_C5\_01final).

### 2. Introduction of Delegates

The Chairman Welcomed delegates from:

ARA (Algeria), ARABiH (Bosnia&Herzegovina), ARTJ (Cameroun), CRC (Czech Republic), DARC (Germany), EDR (Denmark), HRS (Croatia), IRTS (Ireland), MARL (Malta), MRASZ (Hungary), NRRL (Norway), ÖVSV (Austria), PZK (Poland), RAAG (Greece), RAL (Lebanon), REF (France), RSGB (Great Britain), SARL (South Africa), SSA (Sweden), UBA (Belgium), URE (Spain), VERON (Netherlands), ZRS (Slovenia).

The following written proxies were received for the C5 meeting:

NRRL for IRA (Iceland)  
URE for URA (Andorra)  
MARL for ARI (Italy)

The proxy votes for the entire conference validated by Committee C2 also apply in this meeting. These are:

<b>Society</b>		<b>Represented by</b>
AFVL	Liechtenstein	USKA
AGRA	Gabon	ARAI
ARAB	Bahrain	KARS
ARSK	Kenya	CRAM
FRA	Faroes	EDR

QARS	Qatar	TIR
RJARS	Jordan	ROARS
RSM	Macedonia	BFRA
TRAC	Turkey	RAAG

The minutes were taken by OH5LK.

All delegates then introduced themselves. A list of those present can be found at Appendix 2.

## 2a. Setting up of Ad Hoc Committees

The following ad-hoc committees were created:

Microwaves. Convenor G3PFR

Contest matters. Convenor OE1MCU

Handbook. Convenor PA0EZ

**2b. Terms of Reference.** Text on VHF/UHF/Microwaves committee in document DV05\_C5\_38 was accepted

## 3. Action Points from Vienna Interim Meeting 2004

The following action points from Vienna were discussed.

ES coordinator. The person proposed in Vienna is not available. DARC will contact DK5YA on this matter

**Action DARC**

Auroral coordinator. No person available at the moment.

2,4GHz WiFi problems. There were problems with to whom to address our comments.

24GHz EME. The results have been published in the newsletter.

The Chairman reminded of the importance of the action points.

## 4. The report from the Chairman

In his report (DV05\_C5\_26) the Chairman informed the meeting of his activities, for example concerning his work on UWB (Ultra Wide Band) in CEPT.

## 5. Report from the coordinators

Allocations coordinator DK2NH (DV05\_C5\_28). DK2NH has not received information on any changes on allocations since the Vienna 2004 meeting. Next allocations table will be published in coming three months so now is the time to send in updates. The chairman emphasized the importance of the allocations table while meeting with your national administrations

**Action All**

Records coordinator SM7NZB (DV05\_C5\_29). SM7NZB's report was received. DV05\_C5\_07 concerning the model of the earth used for distance calculation was presented by EDR. It was decided that since locators are based on WGS-84, the corresponding model (WGS-84) should be used for distance calculations as well.

## See recommendation DV05\_C5\_Rec\_02.

This recommendation was deleted on the third day of the meeting of C5. Please look at the relevant point (5b) later in the minutes.

Beacon coordinator G0RDI (DV05\_C5\_30). The report was presented by the chair. PZK is testing a MGM beacon in Warsaw area. Some 435 MHz beacons have been moved to the new beacon sub-band but no information of the move has been sent to the beacon coordinator. Regular

updates are needed. The beacon coordinator will soon made it possible to update the information by the national beacon coordinators via internet.

**Action All**

Satellite coordinator G3VZV (DV05\_C5\_31). The report was received. A lot of things are happening in the satellite world. A discussion on Galileo satellite took place. DARC reported on delays with implementing Galileo. There will be more information on Galileo in next Newsletter.

**Action ON6TI,Chairman**

A discussion took place on IARUMS on satellites. A mechanism needs to be found to pass on the interference reports from satellite users to IARUMS. PA0EZ will write to the IARU AC on this matter since this is a worldwide problem.

**Action Chairman**

## **6. Frequency allocations/International bodies**

6.a. ITU WRC2003/2007. PB2T and PA0EZ informed the meeting about the IARU's work concerning ITU WRC2003/2007 meetings. An Earth Exploration satellite that was a possible cause of interference is not allowed to transmit while in view in Europe and the US. It will still be causing interference for example in southern Africa in the 435 MHz band.

6.b. CEPT activities and IARU representation (DV05\_D5-26 Chairman's report). PA0EZ informed the meeting on recent CEPT activities. UWB (Ultra Wide Band) is an important point that we should be aware of. This is dealt with in TG3 (Task Group 3). PB2T is the representative of IARU in FM (Frequency Management) working group. PA0EZ cannot longer take part in the CEPT work. Both PA0EZ and PB2T are still looking for a replacement for PA0EZ in CEPT work.

6.c. National and Region 1 actions required DV05\_C5\_14 is a document about the role of special interest groups. It was introduced by RSGB. DV05\_C5\_06 on challenges to amateurs in the microwaves bands was introduced by RSGB. Allocations coordinator DK2NH is requested to add a threats table to our VHF/UHF/Microwaves bands to the allocation tables. Societies will need to collect this information from their countries and pass it on to the allocation coordinator.

**Action All,DK2NH**

**See recommendation DV05\_C5\_Rec\_03.**

## **7. Operational matters**

DV05\_C5\_20 on meteor scatter procedures was introduced by VERON. This proposal is based on the work of the ad-hoc Meteor Scatter Procedures Working Group set up in Vienna 2004. DV05\_C5\_39 also on meteor scatter procedures was introduced by ÖVSV. Both VERON and ÖVSV proposed that a small ad-hoc working group should be set up to combine the operational procedures aspects of these two documents. PA2KW will be the convenor. Bandplanning aspects of DV05\_C5\_39 will be dealt with later in agenda point 9c.

## **8. Technical Recommendations**

DV05\_C5\_07 on earth modelling for distance calculations for the DX Records Table was already agreed upon at agenda point 5b.

DV05\_C5\_16 on the accuracy of beacon frequencies was introduced by SARL. EDR pointed out that the proposed changes can already be found in the handbook under 6b, technical recommendation B1 and 9A Appendix 2. Handbook should be revised so that all technical matters concerning beacons can be found in one place.

**Action Chairman**

DV05\_C5\_17 on definition of NBFM was introduced by SARL. The term NBFM is not well defined. A solution is to replace NBFM with FM as soon as the bandplans contain the maximum bandwidth.

For 50 MHz and 145 MHz bands this was done already in the San Marino meeting. For the other bands this should be done under agenda point 9.

DV05C5\_24 on digital audio coding was introduced by the chair. The meeting decided that the current recommendation on digital audio coding (Handbook VIb, recommendation D2) is outdated and shall be removed and not replaced.

### **Action Chairman**

DV05C5\_15, an information paper on channel spacing and occupied bandwidth, was introduced by SARL. It states that our standards on Frequency Modulation (12 kHz wide filters) has not been followed up by the equipment manufacturers nor does it fit into mobile radio standards on 12,5 kHz channel separation. The meeting concluded however, that there is no problem. Therefore the existing recommendation shall not be changed.

## Appendix 1 - Agenda

Item	Document number DV05_C5_01final
Opening by the chairman	
1.a. Check on documentation	00v6
1.b. Adoption of the agenda	
2. Introduction of delegates ( proxies shall be mentioned explicitly)	
2.a. Setting up ad hoc WG's ( if required ; f.i. contests, handbook, microwaves)	
2.b. Terms of reference	DV05_C3_38
3. Report of the Vienna 2004 meeting :	23
3.a Action points	40 Info :12
4. Report from the chairman	26
5. Report from the coordinators	
5.a. Allocations coordinator ( see also agenda 6)	28
5.b. Records coordinator	29,07
5.c. Beacon coordinator	30
5.d. Satellite coordinator	31
6. Frequency allocations/international bodies	
6.a. ITU WRC2003/2007	oral
6.b. CEPT activities and IARU representation	26
6.c. National and Region 1 actions required	14,06
7. Operational matters	20,39
8. Technical Recommendations	07,16,24,17 Info : 15
9. Bandplanning	
9a. General principles	09, 43
9.b. 50 MHz	05,40,42
9.c. 145 MHz	19,04,39 Info : 21
9.d. 435 MHz	09,43 Info : 21
9.e. Microwaves	09,25,43,10,18,38,33,41 Info : 13
10. Contests	
10.a Rules/Procedures general	11,08,03,34,36,37
10.b. Rules ATV contest	22v2
10.c. Listeners contest	27,35
10.d. Adjudicating societies 2006 onwards	32
11. Election of candidates for chairman and possibly vice chairman of VHF/UHF/MW Committee (see R1 bye laws 3.18-22)	

12. Interim meeting (yes/no? where? when?)

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

Note: No decisions can be made on matters not contained in any of the conference proposals which were distributed in time. The chairman will decide in unclear situations

## Appendix 2 – Attendees

Arie Dogterom, PA0EZ	Chairman IARU R1 C5 VHF/UHF/Microwave Committee
Heinz-Günter Böttcher, DK2NH	IARU R1 VHF/UHF/Microwave Allocations Coordinator
Michael Kastelic, OE1MCU	IARU R1 Propagation Database Keeper
Afif Benlagha, 7X2RO	ARA
Zeljko Ulip 9A2EY	HRS
Ivan Privitera, 9H1PI	MARL
Hellmuth Fischer, DF7VX	DARC
Kai Pastor, DG0YT	DARC
Toni Baques, EA3BRA	URE
Finbarr Buckley, EI1CS	IRTS
Philippe Martin, F6ETI	REF
Patrick Magnin, F6HYE	REF
Michael Dixon, G3PFR	RSGB
David Butler, G4ASR	RSGB
Laszlo Berzsenyi, HA5EA	MRASZ
Thorleif Andersen, LA3JT	NRRL
Kjetil Toresen, LA8KV	NRRL
Rizkallah Azrak, OD5RI	RAL
Jussi Liukkonen, OH5LK	Secretary
Karel Odehnal, OK2ZI	CRC
Stefan Dombrowski, ON6TI	UBA
Ivan Stauning, OZ7IS	EDR
Jan Janssen, PA0JMG	VERON
Dick Harms, PA2DW	VERON
Evert Bakker, PA2KW	VERON
Sine Mermac S53RM	ZRS
Anders Lahti, SM2ECL	SSA
Zdzislaw Bienkowski, SP6LB	PZK
Cliff Sacalis, SV1JG	RAAG
Abadzic Nusret, T93N	ARABiH
Florence Ntsiyep, TJ1NT	ARTJ
John Fielding, ZS5JF	SARL
Aart Ballast	Observer
Urs Thomi	Observer
Rainer Wilhelm	Observer

### Recommendations from Committee C5 for the Final Plenary:

#### 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**

<b>Band</b>	<b>Allocation Status</b>	<b>Threat/Comment</b>
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
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**