International Amateur Radio Union - Region 1

EUROCOM WG

EUROCOM BOOKLET

1st Edition

November 1999

International Amateur Radio Union - Region 1

EUROCOM WG

INDEX

Remarks

This booklet is hoped to cover the whole history of the Group and its work and was put together in order to have everything together and easy to work with. If there is anything missing or not correct, please do not hesitate to contacting me.

The latest EUROCOM Newsletter you will always find (PDF formatted) as a download file on a specific homepage site of DARC (http://www.darc.de) under > “for foreign visitors” > “Downloads” (direct URL: http://www.darc.de/referate/ausland/iaru/eurocom/).
With this help you may keep the booklet updated.

The EUROCOM Booklet is available* in PDF-format for Acrobat Reader on a 3.5” diskettes or CD.
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H. Berg - (ref: EUROCOM Booklet)
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Dec. 1999
Hans Berg, DJ6TJ

Foreword

This booklet is dedicated to the 1st Chairman of this Working Group Gaston Bertels, ON4WF.

Gaston was born 1927 in the city of Antwerp, Belgium. 1956 he became Radio Amateur with the call ON4WF. 1956 he married and moved to Brussels. Since 1957 he is a member of the Belgium Amateur Radio Society UBA. Since the early 60th he is engaged as officer in different functions within the society. From 1988 up 1998 he was president of the UBA. 1990 he was unanimously elected as the EUROCOM SRWG Chairman of IARU Region 1 and does this job up to today with great efficiency and engagement.

The booklet shall be a written down chapter of one of Gaston ´s engagements for Amateur Radio.
Beneath that it shall be a summary of the work of the whole group and may be updated with the further working results.

December 1999

(Hans Berg, DJ6TJ)

DARC Int´l Liaison Officer

History of the EUROCOM (Sub Regional) **Working Group**

Due to political changes within Europe in the late 1980th by forming the European Community (EC), motivated the societies of the 12 countries to become involved in time in matters of their concerns. This was to prevent rules- / directives- and standards making procedures where our interests are concerned – without being consulted. This became a fact and was recognized more and more.
We got the feeling that the IARU Region 1 did not cover satisfactory our special needs. The Region 1 EMC WG at that time was more engaged in scientific studies etc.
Some societies took notice of plans of European commissions to get standardization to levels which would harm Amateur Radio. At this time DARC, under the leadership of president Karl Taddey, DL1PE, called for a meeting of involved societies. This meeting took place in Duesseldorf and was chaired by the editor. The question during that time was also how and in which kind the interests of those 12 EU countries could be represented. Firstly it was thought on an independent self financed group. Rules and terms of reference have had been already circulated and discussed. A financial fundament for the beginning has not been a big discussion point.

But ..

a further step was initiated at the HAM RADIO 1989 on 24 June (see attachment). DARC was invited to prepare a proposal to the Region 1 Conference 1990. This was done (see attachment). From the first days of discussion and setting steps up, up to this moment Gaston Bertels, ON4WF was the most engaged person in this matter. Beneath that he was in the good position to live in the "European – Place" Brussels. It was not an easy way later to get a working group – like we wanted it – under the umbrella of the IARU Region 1.
With some difficulties the Region 1 Conference in Spain agreed on the WG in principle but not without naming it additionally "Sub Regional", because there have been some claims from Africa. After everybody agreed also in an African Sub Regional WG the first (official) work could be started. Up to a decision at the 1993 Conference the **1990 elected** first **Chairman Gaston Bertels, ON4WF** had to deliver his reports to the Region 1 secretary and not to the EC or the Conference. This was to show that the EUROCOM SRWG has not a status like an whatever regional WG. This was at least the feeling of the EC societies.

But ...

meanwhile the other Region 1 societies and – not believed at the beginning – others in different Regions have to recognize that European Directives – especially with technical standards – are having influence on rule making and other relevant provisions and directives worldwide.

We are proceeding to a new century at least. I am sure that a grown up European Community will become sooner or later "The United States of Europe" with all good and bad things going along with it. This will probably mean that one day those now different 12 + Amateur Radio Societies within this new State will become one unified Society. This should be kept in mind.

Hans Berg, DJ6TJ
Dec. 1999

Appendix 3

Amateur Radio and European Community

24. Juni 1989

DARC proposes to the meeting:

1) EC-Matters are taken care of by a special body formed within the IARU, Region 1 following their terms of reference.

2) The 12 Amateur Radio Societies within EC nominate their Representative within 2 month from now.

3) These Representatives form the EG-Committee of IARU Region 1. One society produces a Conference Paper for the next Region 1 Conference for approval of this Committee.

4) UBA is kindly requested to coordinate the activities with the EC in the meantime, and to organize the first meeting of this Committee within 6 month from now to elect Chairman and Secretary and formulate polities.

5) All other Societies with an interest in EC matters are invited to join as observers.

THE INTERNATIONAL AMATEUR RADIO UNION

REGION 1 DIVISION CONFERENCE

1-6 APRIL 1990

CASTILLO SANTA CLARA • TORREMOLINOS • SPAIN

IARU.—Secretary: 10 Knightlow Road, Birmingham, W. Midlands, England. Tel. +44 21 429 4800. Telegraphic address: AMRAD Birmingham. Télex 337033 MEDADS G - Fax +44 21 456 1467.
URE.—Máiquez, 48-1.° - Teléfono 274 83 97 - 1 409 04 40 - 28009 MADRID (España)

Committee C.3. document 90/TS/C3.28

ECC COMMITTEE OF IARU REGION 1

DARC (F.R.G.)

By 1992 the common market shall be established throughout the European Community. The required harmonisation of all aspects of life is in progress already. Amateur Radio Services are effected not only by licensing conditions, available spectrum in the frequency band but also by technical standards of consumer products. Therefore the whole Amateur Radio environment will be changed and new conditions will be found in 1992.

Therefore, DARC Proposes:

ECC matters are taken care of by a special body formed within IARU Region 1 following their terms of reference. The 12 Amateur Radio Societies within the ECC nominate their representative to form an ECC Committee of IARU Region 1. All other societies with an interest in ECC matters are invited to join as observers.

TERMS OF REFERENCE FOR THE IARU REGION 1
SUB-REGIONAL EUROPEAN COMMUNITY WORKING GROUP
(EUROCOM)

1. The EUROCOM sub-regional Working Group (SWG) is a specialised body of the IARU Region 1. It acts under the provisions of the IARU Region 1 Constitution and Bye-Laws.

2. The EUROCOM SWG will maintain contact with the European Commission, the Economic and Social Committee of the EEC and the European Parliament with the aim of

   a. Identifying the areas of concern in European legislation regarding Amateur Radio;

   b. Circulating information on these areas of concern to the members of the SWG as well as to the Secretary of IARU Region 1;

   c. Communicating those items of information which are considered to be of importance to Amateur Radio and which are not being acted upon within IARU Region 1 member societies via the SWG convenor to the European Community for their consideration.

3. The Eurocom SWG will advise the General Conferences of IARU Region 1 and in between Conferences the Executive Committee of IARU Region 1 on

   a. Optimum policies for dealing with current and future European Community legislation;

   b. Opportunities for acquiring support from the European Community for the development of Amateur Radio.

4. The work of the EUROCOM SWG shall be carried out mainly by correspondence. If it is deemed necessary by the Chairman of the SWG a meeting may be convened after approval of and in consultation with the Executive Committee of IARU Region 1.

5. The Chairman of the EUROCOM SWG shall be appointed at each triannual General Conference and shall act according to the procedures described in the IARU Region 1 Bye-Laws. He shall attend the IARU Region 1 General Conferences and shall report annually to the IARU Region 1 Executive Committee and to a General Conference. His expenses will be re-imbursed according to articles B.3.25 and B.3.28 of the IARU Region 1 Bye-Laws.

Revision adopted at EC meeting Hoofddorp, Sept. 1990
paOqc/eurocom.rpt/November 1990

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 - Fax: +32.2.771.49.89 - E-Mail : gaston.bertels @ village.uunet.be

Brussels, 26 May 1999

EUROCOM
Sub-Regional Working Group
Chairmans Report

Summary

European legislation affecting the Amateur Radio service in the Community has made further progress recently.

The R&TTE Directive has been finalized, adopted and promulgated. Our efforts for preserving Amateur Radio homebrewing were successfull.

Meanwhile, another threat has appeared : limitation of exposure to electromagnetic fields (EMF) to unacceptable values. Action has been undertaken succesfully against the inconsiderate vues of some MEP.

Moreover, the European Commission issued a Green Paper on Radio Spectrum Policy, without even mentioning the Amateur Radio service. In its Resolution on this Green Paper, the European Parliament adopted the amendments prepared by EUROCOM, urging the Commission to secure spectrum for "non-profit applications of public interest, such as the Amateur Radio service".

R&TTE Directive

Under the new name "Radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity", the CTE draft Directive has called for intense lobbying by the EUROCOM WG.

The first goal was in sight when the new draft proposal (RTTE) stated in **Annex I, (a) : Equipment not covered by the directive : "Radio Equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union radio regulations unless the equipment is available commercialy".**

The Commission considered Kits as commercial equipment. This was clearly stated in the answer of Commissionar Bangemann of 22.11.95 to the parliamentary question put by James Provan (PPE) to the Commission (Official Journal of 21.2.1996 Nr. C 51/23).

The EUROCOM Chairman submitted a paper on the very nature of Kits for amateur radio to DGXIII and to Mrs Mel Read, MEP, Rapporteur of the parliamentary Committee in charge of the Directive.

The Rapporteur amended Annex I, par 1, by adding the following : **"Kits of spare parts to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment".**

Both texts have been adopted by the European Parliament and have been preserved during the conciliation process between the Commission and the Parliament which ended December 8, 1998.

The R&TTE Directive has been signed March 9, 1999 by the president of the European Parliament and by the president of the Council and published in the Official Journal of the European Community (7.4.1999). Our two main objectives (home made equipment, kits and modified commercial equipment)

have been achieved and we are also in a good position to reach the third one by participating to the rulemaking for commercial equipment.

Implementation of the R&TTE Directive

The European Commission has appointed ETSI (the European Telecommunications Standards Institute) to prepare guidelines to be used by the Telecommunication Conformity and Market Surveillance Committee (TCAM), a body created by the Directive (article 13) to assist the European Commission in its decisions. Among these are the relevant harmonized standards for telecommunication equipment, to comply with the essential requirements of the R&TTE Directive.

ETSI has set up a special task group for this purpose (TG6). DARC is full member of ETSI (as a qualified "User") and has a permanent representative within ETSI, Ha-Jo Brandt, DJ1ZB who is a member of TG6. This group often had their meetings in the European Commission DGXIII office in Brussels and DARC has introduced the EUROCOM Chairman, who lives in Brussels, as its second representative in TG6.

DJ1ZB and ON4WF have presented several papers to TG6 to draw the attention on the specific needs of the amateur service, as far as their commercial equipment is concerned. The goal is to develop harmonized standards for this equipment with appropriate constraints for the manufacturers in assessing conformity to the essential requirements of the Directive. Once again, the amateur service is a unique category in the constellation of telecommunications.

Exposure to EMF

In August 1997, the US FCC has issued an bulletin of the Office of Engineering and Technology (OET Bulletin 65, Edition 97-01) on the limitation of electromagnetic fields in public areas which, in its Supplement B, is also affecting Amateur Radio.

In Germany, a decree (306/97 issued by the end of 1997) sets even lower EMF limits.

In April 1998, DARC asked the EUROCOM WG to circulate a questionnaire on national regulations concerning EMF. This topic was also debated during the EUROCOM WG meeting in Friedrichshafen, june 1998. The results were published in the EUROCOM Newsletter of 10/07/1998.

On 11/06/98, Directorate General V (located in Luxemburg) presented a proposal for a Council Recommendation on the limitation of exposure of the general public to EMF (0 Hz - 300 GHz). This Recommendation proposes basic restrictions and reference levels based on the advice of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Only the proven thermal effects of EMF on the human body are taken into account. In the frequency range 10 - 400 MHz, the maximum permissible exposure level would be 28 V/m.

This proposal (Com(1998)0268) was submitted to the European Parliament and examined by the Parliamentary Committee on the Environment, Public Health and Consumer Protection (ENVI Committee).

Rapporteur Gianni Tamino, MEP issued a draft Report on 6 November 1998 (PE 228.570). This Report urged the Commission to lay down much lower limits (1 V/m instead of 28 V/m), to be achieved over a ten year period. The Tamino Report took into account the still disputed long-term non-thermal effects of EMF.

EUROCOM alerted the member societies as well as the representatives of telecommunication administrations, public network operators and manufacturers which have representatives in the ETSI ERM_TG6 working group.

Several societies alerted their national authorities. DARC addressed a document to the german MEP. This document was translated into French and into English and circulated by EUROCOM.

URE alerted MEP Fernando Fernández Martín, EA8AK, their past president, who offered his assistance to the EUROCOM Chairman. A close cooperation is now going on.

Action was undertaken by EA8AK to inform the MEP of the major political groups on the technical, economical and social consequences of very low EMF limits. Februari 18, 1999, the Parliamentary Committee adopted the Report, but rejected the very low exposure limits, insisting on a uniform Community framework based on the advise of the ICNIRP.

March 10, 1999, the European Parliament approved the Proposal for a Council Recommendation. The EP insists on inviting the Member States to lay down minimum distances from public buildings, housing and workplaces for the siting of high-voltage transmission lines, radar equipment and broadcasting transmitters, including cellular phone base stations. The recommended safety distances should be displayed on the product concerned, especially mobile telephones.

The Member States should enhance knowledge about the health effects of EMF, taking into account research recommendations from the widest possible range of sources, including the research carried out by many military experts throughout the world.

Moreover, the EP wishes the Council to invite the Commission to submit a proposal for the revision of three other Directives :

- 90/270/EEC on the minimum safety and health requirements for work with screen equipment
- 73/23/EEC and 92/75/EEC on electrical equipment capable of producing EMF (Low Voltage Directive).

If the LVD were to be amended to cover voltages below 50 V, we might face another threat.

Anyhow, the debate on exposure to EMF is still in an early stage. It is to be expected, that it will go on for years. Permanent surveillance and considerate action by the EUROCOM WG is highly desirable.

Green Paper on the European Radio Spectrum Policy

End of 1998, the European Commission (DGXIII) issued a Green Paper on the European Radio Spectrum Policy (COM(98)0596), on which all interested parties were invited to comment.

The 5 major issues on which the Commission requested comments are :
- Strategic planning of the use of radio frequencies
- Harmonisation of radio spectrum allocation
- Radio spectrum assignment and licensing
- Radio equipment and standards
- The institutional framework for radio spectrum co-ordination

The various types of radio applications (not exhaustive) are summarized in 5 sectors and activities :
- Telecommunications
- Broadcasting
- Transport
- Government
- R&D (such as Earth observation and Radio astronomy)

Since 1994, a memory of understanding exists between the Commission and the CEPT. In its role as observer in ITU/WRC and councelor to CEPT, the European Community seeks to ensure that its interests are appropriately represented in these bodies.

The European Commission apparently seeks to extend its power as a rulemaker to radio spectrum matters as a means of developping trade and industry within the Community.

During the public consultation period, the Commission organised three meetings in Brussels with the aim to initiate a wide debate on radio spectrum policy for the European Union.

- On 24 February 1999, a first public consultation meeting was held with industry (individual companies).

- On 17 March 1999, a second public consultation meeting took place for which **associations/representative organisations** were invited.

- On 30 March 1999, a third consultation meeting was held with the Member States/regulatory authorities. The Member States as well as a representation of CEPT were welcomed to attend the first two meetings as observer.

The EUROCOM Chairman asked for input from the Societies to answer the Commission's invitation for a contribution.

SSA submitted a paper with arguments to develop in our response to the Commission. We thank Sigge, SM5KUX for this contribution.

DARC also prepared a paper to be presented to the Commission. Many thanks to DARC.

EUROCOM Chairman globalised the views of the Amateur Radio service on the proposed Radio Spectrum policy within the European Union in a document presented to the Commission.

Meanwhile, EUROCOM participated to the consulation meeting on the Green Paper, organised by the Commission, which took place in Brussels on 17 March 1999. Our delegation was four strong : Hilary Claytonsmith, G4JKS, RSGB President, Peter Kirby, G0TWW, RSGB General Manager, Pierre Cornelis, ON7PC, UBA Board Member and Gaston Bertels, ON4WF, EUROCOM Chairman.

Among the major discussion items, the Commission insisted on the advantages of frequency auctionning, but this idea was rejected by most of the participants. Frequency harmonising was also reviewed but many objections were raised. On the other hand, the assembly supported the idea of a better co-ordination on radio spectrum issues within the Union, as far as international representation is concerned (WRC's). This could lead to a European Union's institutional framework for radio spectrum co-ordination.

The EUROCOM Chairman presented the Amateur Radio service to the participants, insisting on the official status of our service, a legal licence based on a technical examination, self-training and experimentation, communication potential during catastrophies, etc. He suggested that the Amateur Radio service be housed under the category Research and Development, extended to applications of public interest.

The Green Paper was also examined by the European Parliament. The Parliamentary Committee on Economic and Monetary Affairs and Industrial Policy (EMAC) prepared a Report to the EP, bearing a motion for a Resolution. The EUROCOM Chairman prepared an amendment to this Report and M. Fernando Fernández-Martín, MEP (EA8AK), submitted it to Rapporteur M. Felipe Camisón Asensio who accepted it. EMAC voted the drafted motion and the Parliament adopted the Resolution on May 4, 1999, with the amendment "calling for securing the spectrum for Research, Science and **non-profit applications of public interest, such the Amateur Radio service**".

Further development of the European Commission's initiatives in the domain of spectrum management is to be monitored carefully.

CPG

The European Radiocommunications Committee (ERC) set up a Conference Preparatory Group (CPG) to identify priorities, in order to prepare a common European programme for WRC-2000.

Two consultation meetings were held in Brussels (24 - 25 June and 21 - 22 September 1998).

The EUROCOM WG Chairman participated and reported.

ERC is supporting the UMTS project (Universal Mobile Telecommunication System). Endangered Amateur Radio bands might be 1.2, 2.3 and 10 GHz.

HF Mains Signalling

RSGB reported on "HF Mains Signalling". This is a bi-directional cable system transmitting and receiving data, using radio frequencies to and from 'direct to line' connected terminals.

Experiments in the UK show that much of the HF spectrum would become permanently unusable for the amateur service if such a system were used commercially.

Member societies are invited to report on any initiative of any operators in this field. RSGB, VERON and DARC already reported.

EUROCOM WG activity

In the last three years, the European institutions initiated several measures with an impact on the Amateur Radio service, calling for appropriate action by the EUROCOM WG.

The circulation of EUROCOM Newsletters has been a permanent effort and has fostered the interest of the member societies in the European issues.

EUROCOM Newsletters are not issued periodically, but rather whenever an event occurs. The purpose is to inform the societies and to call for attention or for action. Their numbers reflect the increasing activity :

1997 : 5 Newsletters
1998 : 8 Newsletters
1999 : 11 Newsletters (till May 1999)

It is to be expected, that this trend will continue, calling for even more efforts from the Amateur Radio community.

Thanks

The EUROCOM WG Chairman thanks the member societies and especially the correspondents who contributed efficiently to the common efforts for the defense of the Amateur Radio service within the European Union.

We are especially gratefull to DARC for hosting the yearly EUROCOM WG meeting in Friedrichshafen.

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 - Fax: +32.2.771.49.89 - E-Mail : gaston.bertels @ village.uunet.be

March 10, 2000

IARU Region 1 Executive Committee meeting April 2000

1.1 Status Report on RTTE Directive (Agenda item 12-2-3 b)

The R&TTE Directive has to be implemented in the national laws of the Member States on April 8, 2000.

In our report to the General Conference, we stated that "our two main objectives (home made equipment, kits and modified commercial equipment) have been achieved and we are in a good position to reach the third one by participating to the rulemaking for commercially available equipment".

Article 3 of the R&TTE directive states:

> *3.1 The following essential requirements are applicable to all apparatus:*
>
> *(a) the protection of the health and the safety of the user and any other person, including the objectives contained in Directive 73/23/EEC (Low Voltage Directive), but with no voltage limit applying;*
>
> *(b) the protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC.*
>
> *3.2 In addition, radioequipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.*
>
> *3.3 ...*

The requirements of Art. 3.3 of the R&TTE Directive are not applicable to amateur radio equipment.

Compliance to the "essential requirements" of the R&TTE Directive can be satisfied by compliance to "harmonized standards" for the type of equipment under consideration.

1.2 Harmonized Standard for Amateur Radio Equipment

As reported previously, the European Commission has appointed ETSI (the European Telecommunications Standards Institute) to prepare harmonized standards. These standards are submitted for approval to the Telecommunications Conformity and Market Surveillance Committee (TCAM), a body created by the R&TTE Directive (Art.13) and which is now operational.

The relevant ETSI working groups meet frequently. DARC is a member of ETSI. When a topic about amateur radio is on the agenda, Ha-Jo Brandt (DJ1ZB), the DARC delegate, participates. ETSI WG ERM-RP 02 met in Budapest 10-14 January 2000 and the drafting of a harmonized standard for commercially available amateur radio equipment was on the agenda. DJ1ZB was on a ITU meeting the same week. On behalf of DARC, ON4WF represented DARC on the ETSI meeting in Budapest.

1.3 Present status of the drafted Harmonized Standards

As far as EMC and spectrum are concerned, the essential requirements for Amateur Radio equipment will be satisfied by complying with two different Harmonized Standards:

- EN 301 489-15 covering EMC requirements under Art. 3.1b of the R&TTE Directive
- EN 300 AMA covering spectrum requirements under Art. 3.2 of the R&TTE Directive, where "AMA" will be replaced by an appropriate number to be given by ETSI / ERM.

Since the new documents contain no technical change, but are the result of the reformatting of ETS 300 684, a Harmonized Standard under the EMS Directive, it was decided that the "ETSI One Step Procedure" should be used. A 14-day period was allowed to consider the draft.

No sustained objections have been received to the approval of the drafts. The draft documents are therefore approved for the One-Step Approval Procedure. This means that no further public consultation is required.

The Harmonized Standards will be presented to TCAM for adoption by the European Commission.

2.1 Telecommunications Regulatory Package

In 1998, the European Commission addressed to the Member States a Telecommunications Regulatory Package.

The Member States were urged to sustain and develop a policy offering an affordable access to telecommunication services and to the Internet for all citizens.

The implementation of this regulatory package by the Members States has been closely followed up by the Commission. The Fifth Report on the Implementation of the Telecommunications Regulatory Package (COM(1999)537) has been submitted to the Parliament.

The President referred the report to the Committee on Industry, External Trade, Research and Energy (INDU) as the committee responsible, and to the Committee on Legal Affairs and the Internal Market for its opinion.

INDU prepared a draft report presented by rapporteur Reino Kalervo Paasilina. Appended is the provisional text, dated 8 March 2000 of the Motion for a Resolution to be submitted to the European Parliament.

2.2 Drafted Resolution

The drafted Resolution

- regrets that limited offerings at the level of local loops have prevented the liberalisation to reduce the cost of access to the Internet (3.)
- demands steps to foster unbundled access to telephone and other existing fixed structures, in particular television cable, and to encourage the development of new alternative infrastructure, in particular wireless local loop systems (4.)
- considers that **radio frequencies should not be auctioned** (5.)
- regrets the existing discrepancies between the National Regulatory Authorities of the Member States (9.)
- considers that while the creation of a centralised European Regulatory Authority is not necessary (10.), it would be desirable:
  - to define more clearly at Community level the extent of the competenties of the NRA's, in particular regarding **allocation and use of spectrum for telecommunications** and broadcasting (without prejudice of the specific national rules and institutions for audiovisual policy)
  - to strengthen the current informal co-operation of NRA's ... in the form of a **European System of Telecommunications Regulators**

Respectfully submitted to the IARU Region1 Executive Committee

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 - Fax: +32.2.771.49.89 - E-Mail : gaston.bertels @ village.uunet.be

Brussels, 5 Februari 1999

EUROCOM WG REPORT 1998

Introduction

European legislation affecting the Amateur Radio service has made further progress in 1998.

The R&TTE Directive has been finalized and is now ready for the signature by the President of the European Council and by the President of the European Parliament. Our two main objectives (home made equipment, kits and modified commercial equipment) have been achieved and we are also in a good position to reach the third one (by participating to the rulemaking for commercial equipment).

Meanwhile, another threat has appeared : limitation of exposure to electromagnetic fields (EMF) to unacceptable values. Action has been undertaken against the inconsiderate vues of some MEP.

R&TTE Directive

Under this new name, the CTE draft Directive has called for intense lobbying by EUROCOM WG. The first goal was in sight when the new draft proposal (RTTE) stated in **Annex I, (a) : Equipment not covered by the directive : "Radio Equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union radio regulations unless the equipment is available commercialy".**

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This proposal (Com(1998) 268) was submitted to the European Parliament and examined by the Parliamentary Committee on the Environment, Public Health and Consumer Protection (ENVI Committee).

Rapporteur Gianni Tamino, MEP issued a draft Report on 6 November 1998 (PE 228.570). This Report urges the Commission to lay down much lower limits (1 V/m instead of 28 V/m), to be achieved over a ten year period. The Tamino Report takes into account the still disputed long-term non-thermal effects of EMF.

EUROCOM alerted the member societies as well as the representatives of telecommunication administrations, public network operators and manufacturers which have representatives in the ETSI ERM_TG6 working group.

Several societies alerted their national authorities. DARC addressed a document to the german MEP. This document was translated into French and into English and circulated by EUROCOM.

URE alerted MEP Fernando Fernández Martín, EA8AK, their past president, who offered his assistance to the EUROCOM Chairman. A close cooperation is now going on.

Action is undertaken by EA8AK to inform the MEP of the major political groups on the technical, economical and social consequences of very low EMF limits. An amendment will be presented to the European Parliament to be voted upon at the plenary session of 8 March 1999. The goal is that the ICNIRP exposure levels be accepted.

Anyhow, the debate on exposure to EMF is still in an early stage. It is to be expected, that it will go on for years. Permanent surveillance and considerate action by the EUROCOM WG is highly desirable.

CPG

The European Radiocommunications Committee (ERC) set up a Conference Preparatory Group (CPG) to identify priorities, in order to prepare a common European Union programme for WRC-2000.

Two consultation meetings were held in Brussels (24 - 25 June and 21 - 22 September 1998).

The EUROCOM WG Chairman participated and reported.

ERC is supporting the UMTS project (Universal Mobile Telecommunication System). Endangered Amateur Radio bands might be 1.2, 2.3 and 10 GHz.

HF Mains Signalling

RSGB reported on "HF Mains Signalling". This is a bi-directional cable system transmitting and receiving data, using radio frequencies to and from 'direct to line' connected terminals.

Experiments in the UK show that much of the HF spectrum would become permanently unusable for the amateur service if such a system were used commercially.

Member societies are invited to report on any initiative of any operators in this field.

Conclusion

1998 has been a period of intense activity for the EUROCOM WG.

The circulation of EUROCOM Newsletters has been a permanent effort and has fostered the interest of the member societies in the European issues. Since the 1998 EUROCOM WG Report, 10 Newsletters were circulated.

EUROCOM Newsletters are not issued periodically, but rather whenever an event occurs. The purpose is to inform the societies and to call for attention or for action.

It is to be expected, that 1999 will be another year of hard work for the EUROCOM WG.

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel/Fax: +32.2.771.67.74 - E-Mail : gaston.bertels @ innet.be

Brussels, 12 Februari 1998

EUROCOM WG REPORT 1998

Foreword

The 1997 EUROCOM WG Report to the EC focused on the new regime for conformity assessment of Connected Telecommunications Equipment being prepared by the European Commission (DG XIII). On 22 october 1996, an IARU / EUROCOM delegation had met M. Richter, in charge of drafting a proposal for a CTE Directive.

In 1997, intensive work has been done by the EUROCOM WG, even before the CTE proposal was officially circulated. It should be emphasised that the use of electronic mail by the IARU R1 EC and by most of the EUROCOM correspondents, as well as by the European authorities has considerably accelerated the process. Dozens of messages have been exchanged, drafts and lengthy texts have been circulated by email at very short notice. The working group's efficiency has thus been optimized.

The CTE Directive proposal

In april 1997, DGXIII confidentially circulated to the PTT of the Member States an unofficial preliminary draft of a proposal for a Directive on mutual recognition of the conformity of connected telecommunication equipment. On 6 May 1997, this draft was circulated by EUROCOM.

The proposal replaces an existing regime of type-approval (Directive 91/263/EEC) by a regime of "declaration of conformity to essential requirements" by the manufacturer for all telecommunication equipment, radio equipment included. It also introduces a liability regime similar to that in Directive 85/374/EEC on liability for defective products. No exception was provided for amateur radio equipment.

Several EUROCOM correspondents reacted immediately and called for action against this proposal.

The best way to act upon the CTE proposal was to try and introduce amendments in favour of the amateur service. This could be done by getting support of the Social and Economic Committee and of the Parliament.

On 30 May 1997, the official proposal for a European Parliament and Council Directive on CTE was published by the European Commission (COM(97) 257 final).

It had to be submitted to the European Social and Economic Committee (SEC) and to the European Parliament (EP). However, this was not done before the end of July 1997. Meanwhile, DGXIII had appointed another advisor (Marc Bogers) for this proposal and a new proposal was being prepared on the conformity of radio and telecommunication terminal equipment (RTTE). In fact, only the original CTE proposal has actually been accepted for examination by the SEC and the EP.

EUROCOM WG meeting in Friedrichshafen

On 28 June 1997, at Ham Radio in Friedrichshafen, DARC hosted a EUROCOM WG meeting on the CTE topic. The report of this meeting appeared in the EUROCOM Newsletter of 15 July 1997.

The participants were unanimous that home made equipment (including kits) should be exempted from any form of type approval, even by declaration of conformity. The majority also wished that the CTE Directive be not applicable to commercial amateur radio equipment.

It was decided that each EU member society should address a request to their National Regulatory Authority asking for support in seeking exemption from the CTE Directive for all types of amateur radio equipment. RSGB accepted to prepare a draft so that the request be presented in the same wordings and with the same arguments in every country.

Lobbying

The RSGB also prepared a set of arguments in favour of the free use of amateur radio equipment. These documents were appended to the EUROCOM Newsletter of 1 August 1997. Several societies used this material to approach their national authority (RSGB, DARC, VERON, IRTS…).

The Secretary General of the SEC (Adriano Graziosi, ON5GA) introduced us to the rapporteur of the ad hoc study group set up by the SEC (M. Green Bo), as well as to the rapporteur of the study group of the Committee on Economic and Monetary Affairs and Industrial Policy (EMAC) of the EP, Mrs Imelda Read, MEP.

We introduced the amateur service to these rapporteurs, asking for their support in defending our case. We specially asked for a meeting with Mrs Read.

On 25 September 1997, Mrs Read accepted to meet an IARU delegation on 16 October 1997 in Brussels.

In September 1997, we learned incidentally, that Portugal had introduced type-approval for amateur equipment.

The EUROCOM Newsletter of 25.09.1997 reported on these items and called for delegates to the meeting with Mrs Read.

Meeting Mrs Read, MEP, rapporteur to the European Parliament

An IARU R1 delegation of seven EUROCOM representatives (RSGB, DARC, REF, EDR, UBA) met Mrs Read in the European Parliament, Brussels, on 16.09.1997.

Marc Bogers, DGXIII, now in charge of the CTE Directive, participated to the meeting, as well as Thierry Jacob, EMAC.

This meeting was very beneficial. We had the opportunity to present the amateur service and its educational and experimental aspects.

We pointed out, that the specific status of the amateur service should be taken into account in the CTE Directive and suggested that we prepare a draft amendment.

This was accepted and we were asked by Mrs Read to also prepare a set of arguments she could eventually use to defend our case before the Parliament.

The EUROCOM Newsletter of 22.10.1997 reported on this meeting.

Preparing amendments in favour of the amateur service

In a very short time, but after intensive emailing, a proposal for amendments to be introduced in the CTE Directive was finalized, as well as a set of arguments. These were presented to Mrs Read and to Thierry Jacob.

Thierry Jacob prepared a draft report that he emailed. The report introduced three amendments in favour of the amateur service. The EUROCOM Newsletter of 20.11.1997 reported on this development.

On 2 december 1997, the Committee on Economic and Monetary Affairs and Industrial Policy (EMAC) discussed the Report presented by Mrs Read, MEP. The EUROCOM WG Chairman assisted as an observer.

Mrs Read began her presentation by saying that she had undergone heavy lobbying by the amateur radio service. She emphasized the experimental aspects of amateur radio and justified the amendments she has introduced in favour of this service.

The MEP made no comments on the amateur radio amendments.

In the same session, another rapporteur reported on a communication of the Commission with regard to the further development of mobile and wireless communications (UMTS).

We can expect CEPT to be looking for frequency allocations for UMTS in the near future.

The EUROCOM Newsletter of 2.12.1997 reported on this EMAC meeting.

The Opinion of the Social and Economic Committee on the CTE Directive has been published on 10 December 1997. It states that "The scope of radio equipment covered by the Directive should exclude radio equipment used by radio amateurs".

Amendments adopted by the Parliamentary Committee

On 21 January 1998, the Committee on Economic and Monetary Affairs and Industrial Policy unanimously adopted the draft legislative resolution.

The three amendments in favour of the amateur radio service were maintained :

- Recital 20a : "…; **whereas this Directive does not restrict the non-commercial building, transformation or use of RTTE in Amateur Radio and Satellite services by licensed radioamateur**s;"
- Article 3, par.2 (ca) : "**for equipment exclusively intended for the Amateur Radio Service as defined by the International Telecommunications Union Radio Regulations RR S1.56 and for the Amateur Satellite Service as defined by the Radio Regulations RR S1.57, compliance with the essential requirements can be proven by a technical specification covering only limitation of emissions outside bands allocated to the Amateur Radio Service without prejudice of Article 8**".
- Article 6, par. 3a : "**Home built equipment, kits and modified commercial equipment, intended exclusively for use by licensed radio amateurs and not intended to be placed on the market, are exempted from the requirements of this Article**".

The adopted resolution was emailed to the EUROCOM WG correspondents on 23 January 1998.

Amendments adopted by the European Parliament

On 29 January 1998, the plenary of the European Parliament approved the proposal for the CTE Directive.

The amendment for Recital 20a and the amendment for Article 3, par.2 were adopted.

The amendment for Article 6, par. 3a was rejected.

Since home built equipment, kits and modified commercial equipment, not intended to be placed on the market, is anyway out of the scope of the Directive, the Parliament did not see the need to exempt it from the requirements of article 6 (Placing on the market and putting into service).

Moreover, the amendment is redundant with the amendment of Recital 20a.

The text of the adopted amendments is available in different languages on the Internet :

http://www.europarl.eu.int

Legislative process

The next steps in the legislative procedure are :

- the European Commission will be asked to alter its proposal according to the Parliament's amendments
- the European Council will be called upon to incorporate Parliament's amendments in its position
- should the Council depart from the text approved by the Parliament, the conciliation procedure should be initiated
- the Commission is required to submit to Parliament any modification it may intend to make to its proposal as amended by Parliament.

The EUROCOM Newsletter of 12.02.1998 reported on this latest developments.

Conclusion

So far, we have succeeded in reducing the burden of conformity assessment for commercial amateur radio equipment to an acceptable level.

The exemption of home built equipment has not been written down by the Parliament in the articles of the Directive. It has been stated in the recital. However, the Commission (DGIII) will probably reintroduce this statement in a proper way into the text of the Directive.

We will have to follow up the further development very closely.

Gaston Bertels, ON4WF - EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel/Fax: +32.2.771.67.74 - E-Mail : gaston.bertels @ innet.be

EUROCOM WG REPORT 1997

As announced in the report to the Conference in Tel Aviv, october 1996, EUROCOM set up a visit to Directorate XIII of the European Commission in Brussels. The delegation met M. Richter in his office on 22 october 1996. The topic discussed was the draft CTE Directive.

Participants :
Jörgen Richter, Head of Telecommunications - Standards Section - DG XIII
Gaston Bertels, ON4WF, EUROCOM WG Chairman
Jean-Marie Gaucheron, F3YP, President REF
Marie-Denise Gaucheron, F6AYL, XYL F3YP
Karl Erhard Vögele, DK9HU, Vice-President DARC
Manfred Dudde, DL5KCZ, DARC Consultant for norms and applied technology

Apologies :
Due to unexpected circumstances, Hilary Claytonsmith, G4JKS, Christian Verholt, OZ8CY and Leon Kusters, PA3DOS could not be present.

The CTE Directive
The new regime for conformity assessment of connected telecommunications equipment in Europe

A draft proposal

1. Aims and objectives of the draft Directive

They are twofold:

- to update the regulatory framework for the placing on the market, the free circulation and putting into service of Connected Telecommunications Equipment, i.e. equipment known today as telecommunications terminal equipment but including radio equipment, new innovative equipment types and future products. Connected Telecommunications Equipment (CTE) is defined as being connected to an Open Telecommunications Infrastructure (OTI);
- to establish a relaxed set of procedures superseding the current type approval system. The proposed set of procedures casts a proportionate balance between a priori measures and a posteriori surveillance. The new element in establishing this balance is the extended application of Directive 85/374/EEC concerning liability for defective products. Telecommunications equipments which do not conform to the essential requirements applicable would be exposed to the penalties laid down in this Directive.

2. Essential requirements

The essential requirements will have to be identified for each type of telecommunications equipment. The following classes of telecommunications essential requirements are proposed:

- prevention of misuse causing a degradation of service to other than the user, his called or calling party
- interworking and portability between networks in cases where the Council has declared that there should be Community-wide availability
- effective use of spectrum allocated to terrestrial/space radio communication and used for radio services
- features for the disabled
- features for emergency and security services
- protection of individual privacy.

Any number from zero to all essential requirements may in principle be selected. In case of zero requirements, no National Regulations shall be applied.

Moreover, the equipment has to comply with the Low Voltage and the EMC Directives.

3. **Conformity assessment**

The manufacturer will communicate a declaration of conformity and the technical documentation with proof of evidence to a Notified Body of his choice, existing within the Community.

He will appose the “CE” marking, followed by the identification number of the Notifed Body having received the declaration and the documentation.

For terrestrial and space radiocommunications equipment, all essential radio tests must be carried out by the manufacturer or by a third party test laboratory selected by him. Furthermore, the technical documentation must include the full test reports of all essential radio tests.

Where applicable, these procedures may also be applied to assess conformity of the CTE’s to the essential requirements of other Directives such as the EMC Directive.

4. **Services identified for the purpose of the CTE Directive**

The CTE Directive will be applicable to all terrestrial and space radiocommunications services, including the amateur radio service and the satellite amateur radio service.

For experimental amateur radio home made equipment, the radioamateur will be considered as a manufacturer. As such, he will proceed to the essential radio tests, communicate a declaration of conformity to a Notified Body and appose the “CE” marking on his home made equipment.

The Directive 89/336/CEE concerning the Electro-Magnetic Compatibility is not applicable to amateur radio home made equipment and the CTE Directive will not change this.

The essential requirements for radiocommunications equipment will be different for each radio service and can be limited for the amateur radio services to:

- allowed frequencies
- maximum power.

The CTE Directive ensures linkage between the placing of CTE’s on the market and the right to use such equipment.

5. **Benefits for the amateur radio services**

The radioamateur services would participate to the choice of the applicable essential requirements, being the allowed frequencies and the maximum power. This would offer protection against the possible tendency of some Member States to impose restrictions on the frequency bands and on the equipment.

Moreover, it would be a benefit for the amateur radio services that the manufacturers become more competitive within a harmonised European market.

6. **Opposition of some Member States**

During the meeting, M. Richter said that Commissioner Bangemann (the European Minister of telecommunications) is hesitating to publish the draft CTE Directive. Preliminary contacts indicate, that there is a blocking minority within the Commision against the project. Germany (10 votes), France (10 votes) and Spain (8 votes) would oppose the project, whereas 62 votes on a total of 87 votes are required for a draft Directive on a technical matter of this kind.

A parlementary question addressed to M. Bangemann on the reasons for the delay in presenting the announced project, would open a public debate and possibly clear the procedure. M. Richter hopes that such an initiative will be induced by the amateur radio societies...

M. Richter declared that he is deeply convinced of the important contribution of the amateur radio services in building international goodwill between people, as well as in promoting the telecommunications technologies, particularly in developing countries which represent two thirds of the world.

The European IARU societies have to decide upon their position.

7. **Position of the societies**

Up till now, four societies made comments:

- DARC does not wish to adopt a position before having read the draft Directive. The society fears that a Community-wide harmonisation would result in important losses for the german radioamateurs in terms of frequencies and power limits. New regulations are presently under discussion and DARC would like to promote them as a model for other European countries.

- RSGB points out that in the UK there is no type approval for amateur radio equipment. The new Directive would introduce a new constraint, as well for commercial as for home made equipment. For home made equipment, amateurs would have to take into account several Directives, which they would have to be familiar with. If applicable, the Low Voltage Directive requires third party testing, an indefensible burden for a radio amateur. Community-wide harmonisation of frequencies and power limits would possibly put an unreasonable burden upon some transmitter types, such as the VFO controled ones. Such an harmonisation could result in frequency and power losses for some countries. RSGB cannot generate a response until the text of the draft Directive has been studied by the relevant committees. At the moment, it appears that amateur radio equipment should be excluded from the CTE Directive. An action to get the MEP to promote this exclusion might be taken into consideration.
- EDR thinks that home made equipment should be excluded from the Directive. Without knowing the text, it is difficult to evaluate the consequencies. EDR has negociated new regulations with their authorities and the results are satisfying, without being perfect. If the Directive means significant losses for the Danish amateurs, it would be difficult to support the project. EDR's Executive Committee has informed their "protector", OZ1CR, Chr. ROVSING, MEP about its attitude to the draft CTE Directive.
- REF is strongly in favour of the CTE Directive. In France, national type approval of amateur radio equipment puts a heavy burden on commercial manufacturers. REF will produce a list of questions to be submitted to M. Richter, asking for more details on the practical effects of the CTE Directive on the amateur radio services.

8. **Further action**

It appears clearly, that the position of the societies towards the draft CTE Directive depends on the existing conditions in each country, specially for type approval of amateur radio equipment. The fears about harmonised frequencies and power limits are also understandable.

The EUROCOM Chairman suggests that each society produce a list of questions to be submitted to Directorate XIII, in order to try and gain a better understanding of the possible effects of the CTE Directive on the amateur radio services in the European Union.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Convenor
Avenue Paul Hymans, 117 box 29 - B-1200 Brussels - Belgium
Tel/Fax: +32.2.771.67.74

Brussels, 15 February, 1996

EUROCOM Report to the E.C.

1. Meeting with DGXIII staff member

In accordance with the policy defined by the Terms of reference of the EUROCOM s.r.w., the contact established in 1993 with Mr Richter, staff member of Directorate XIII of the European Commission, was followed up in 1994 and in 1995.

CLG Chairman, Jaap Dijkshoorn (PAoTO), and EUROCOM Convenor Gaston Bertels (ON4WF) met Mr.Richter in September 1994.

The following matters were discussed :

- CEPT recommendations T/R 61-01 and T/R 61-02
- Conversion of CEPT recommendations into ERC Decisions
- EC Directive on the Mutual Recognition of Licences and other National Authorizations for telecommunications Services
- Type approval of amateur equipment :
  - Factory Manufactured Amateur Equipment
  - Home built Amateur Equipment
  - Future Aspects.

The meeting lasted the whole afternoon. Mr.Richter showed a real interest in amateur matters. He gave PAoTO some very valuable documents which proved usefull to the CLG Chairman during a CEPT WG RR meeting in september 1994.

2. New EUROCOM correspondents

In 1995, three more EUROCOM correspondents were appointed:

ÖVSV	Ronald Eisenwagner, OE3REB, Theresiengasse 11, A-1180 Vienna, Austria
SRAL	Markku Toijala, OH2BQZ, Kiskontie 26 A, FIN-00280 Helsinki, Finland
SSA	Gunnar Kvarnefalk, SMoSMK, Ekhammarsvägen 45, S-196 30 Kungsängen, Sweden

Moreover, after the sudden passing away of PAoTO, VERON appointed a new correspondent:

VERONLéon Kusters, PA3DOS, ‘t Rond 1, NL-3632 BN Loenen aan de Vecht, The Netherlands

3. A new Telecommunications Terminal Equipment Directive

Meeting Mr Richter, early in 1995, we learned that a new Directive was being prepared. This was announced in the annual report 1995.

In december 1995, the draft of this Directive appeared to be nearly ready. The Radio Amateur Service and the Satellite Amateur Service seem to be within the scope of this Directive.

This was announced in a Newsletter (december 1995) circulated to the EC and to the EUROCOM correspondents.

Up till now, the draft has not yet been published. It is being examined within Directorate XIII. We were told, that it will probably be ready mid-march 1996.

The draft will be submitted for approval to the European Parliament and to the Social and Economic Committee.

As soon as we can get hold of it, we will circulate it to the EC and to the EUROCOM correspondents.

EUROCOM members will be invited to examine this drafted Directive. They will be asked to address their observations and suggestions to the convenor within a short time. The convenor will summarize.

Mr Richter has suggested to meet an IARU/EUROCOM delegation in Brussels for a discussion about the implications of the Directive on the Amateur Service.

It is important to define a common attitude before meeting the representative of Directorate XIII of the European Commission.

The next step will be to decide upon any further action, it will possibly be found necessary to undertake.

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Gaston Bertels, ON4WF
EUROCOM Convenor

EUROCOM s.r.w.
Annual Report to the E.C.

1. Meeting with DGXIII staff member

In accordance with the policy defined by the Terms of reference of the EUROCOM s.r.w., the contact established in 1993 with Mr.Richter, staff member of Directorate XIII of the European Commission, was closely followed up in 1994.

Mr.Richter was invited to HAM RADIO in Friedrichshafen 1994 by courtesy of D.A.R.C. A meeting had been planned jointly by the Common Licence and EUROCOM working groups. Unfortunately, our guest was unable to participate, due to an unexpected mission for the European Commission.

As an alternative, we arranged for a meeting of the CLG Chairman, Jaap Dijkshoorn (PAoTO), and the EUROCOM Convenor Gaston Bertels (ON4WF) with Mr.Richter. This meeting took place on September 16th, 1994 in his office at the European Commission in Brussels.

The following matters were discussed :

- CEPT recommendations T/R 61-01 and T/R 61-02
- Conversion of CEPT recommendations into ERC Decisions
- EC Directive on the Mutual Recognition of Licences and other National Authorizations for telecommunications Services
- Type approval of amateur equipment :
  - Factory Manufactured Amateur Equipment
  - Home built Amateur Equipment
  - Future Aspects.

The meeting took place in a very friendly atmosphere. It lasted the whole afternoon. Mr.Richter showed a real interest in amateur matters. He gave PAoTO some very valuable documents which proved usefull to the CLG Chairman during a CEPT WG RR meeting in september 1994.

2. New EUROCOM s.r.w. Members

The Presidents of ÖVSV, SRAL and SSA have been invited to appoint a EUROCOM correspondent.

VERON will also have to appoint an new correspondent, since our dear friend Jaap, PAoTO, suddenly became a "Silent Key".

PA3AVV, VERON's President is acting as correspondent for the time being.

3. Presentation of the Amateur Service to Commissioner Bangemann

Commissioner Bangemann was recently reconducted in his office.

As we met Mr.Richter at New Year to present our best wishes, we were advised to address a presentation of the Amateur Service to the European Commissioner.

We are now working on this project, together with Mr.Graziosi (ON5GA), General Manager of the European Social and Economic Committee.

We are also seeking an introduction to and some support from the prominent Members of the High-Level Group who signed the "Recommendations to the European Council", a 1994 report about "Europe and the global information society".

4. A new Telecommunications Directive ?

From a conversation with Mr.Richter, I learned that Commissioner Bangemann instructed Mr.Richter to prepare a global Directive on Telecommunication matters.

We will have to be alert more than ever.

Gaston Bertels, ON4WF
EUROCOM Convenor

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTER

2003

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

04.05.2003

Access Power Line Technology

Test in The Netherlands fails

This is the translation of an article published by the Dutch newspaper "Alkmaarse Courant" dated May 2nd, 2003.

"Internet from the mains" test fails

ARNHEM

Nuon will not start "Internet from the mains" in The Netherlands. The test conducted in Arnhem with one hundred eighty households will be ended July 1st for technical and commercial reasons.

This means that, for the time being, there will not be a third infrastructure for broadband Internet in The Netherlands to compete with TV-cable and ADSL.

Utilities concern Nuon, which has invested over half a million euro in the so-called test project "Digistroom", came this week to the conclusion that commercial roll out towards its 2.6 million customers is unfeasible.

Investments are far too high. "We cannot compete with TV-cable and ADSL" said Menno Van Groeningen, responsible for Digistroom.

The low voltage powernet is not as such suitable for the transport of broadband data. Consequently, an expensive amplifier is needed for the connection to each house. Moreover, installing an ADSL line from the KPN telephone exchange to the local power transformer is costly. There are 40.000 power transformers in The Netherlands and for Nuon this would represent an enorm investment. Deploying a product like Digistroom over whole the country would take two years. Writing off this cost needs seven years. We already know that, in 2010, our customers will not be satisfied with present bandwidths, Van Groeningen said. By way of comparison: the cheapest ADSL service in The Netherlands, with a download rate of 256 kB, costs about 30 euro per month. Higher speeds are considerably more expensive. Digistroom offered 1.4 megabyte on the mains. Van Groeningen: "But if you have to share that with 25 people, little remains".

Nuon has been looking for alternative solutions, but these too present huge technical difficulties. Elsewhere in Europe, similar projects have been stopped already.

The technical, commercial and strategic reasons presented by Nuon to discontinue the PLT experiment are highly meaningful and offer an insight to the dilemma access PLT promotors elsewhere in the world are confronted with.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

02.06.2003

EMC/EUROCOM meeting - Ham Radio 2003

1. Convening

The IARU Region 1 EMC and EUROCOM working groups set up a meeting in Friedrichshafen, Germany during the 2003 Ham Radio convention.

DARC offered to host this meeting which is convened in the SEEhotel on Saturday June 28th 2003 at 14:00.

SEEhotel Friedrichshafen is located Bahnhofplatz 2 - 88045 Friedrichshafen. <www.seehotelfn.de>.

Interested parties are invited to this meeting where the main topic to be discussed will be PLT.

2. Agenda

A provisional agenda has been drafted:

1. Opening and welcome
2. To nominate a chairman to the meeting
3. To nominate a secretary to the meeting (minutes)
4. Summary review of events on the PLT front since the PLT Symposium Friedrichshafen 2002 (ON4WF)
5. New proposed draft standard for telecommunications networks under EC Mandate 313 (G4JKS and OZ8CY)
6. PLT trials and interference (OZ8CY)
7. High level political pressure (G4JKS)
8. Contributions from the floor
9. Action points
10. To close the meeting

3. On the importance to participate

PLT, access as well as inhouse, continues to threaten HF services. Weak signal users, such as radio astronomy and amateur radio, are among the most exposed.

To trace the ways to continue the fight against PLT generated interference is vital.

We hope to see you.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

08.06.2003

PLT information stand - Ham Radio 2003

1. PLT information

PLT, access as well as inhouse, continues to threaten HF services. Weak signal users, such as radio astronomy and amateur radio, are among the most exposed.

To trace the ways to continue the fight against PLT generated interference is vital.

The menace is not limited to Europe but threatens HF users all over the world. IARU coordinates the efforts to protect the amateur radio service from the growing threat.

A PLT information stand will be integrated in the IARU stand at Ham Radio, Friedrichshafen June 27 - 29, 2003.

2. Call for assistance to staff the PLT information stand

Posters and handouts and a powerpoint presentation are among the material being prepared to inform the visitors and ring the alarm-bell.

To staff the stand volunteers are needed.

We extend an urgent call for assistance to the member societies. Would you please make arrangements *before* Ham Radio to set up a roster of volunteers to staff the PLT information stand during the hamvention.

Coordinator for the PLT information stand is Hilary Claytonsmith, G4JKS. Please make arrangements by e-mail g4jks@btinternet.com.

Many thanks for your help !!

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter
11.07.2003

EMC/EUROCOM 2003 meeting minutes

1. Opening and welcome
Gaston Bertels ON4WF welcomed all participants

2. To nominate a chairman to the meeting
Gaston Bertels was appointed chairman of the meeting

3. To nominate a secretary to the meeting (minutes)
Hans Blondeel Timmerman PA7BT was appointed as minutes taker

4. Summary review of events on the PLT front since the PLT Symposium Friedrichshafen 2002 (ON4WF)
ON4WF presented an overview of actions and events since the last PLT symposium

- September 02: Call for action by the member societies towards their National Cenelec committee to oppose the LCL method for mains and to answer a JWG questionnaire on emission limits in a suitable way. (The JWG questionnaire did never appear)
  Done by Hol, UK, D, Belgium, Lux
- January 03: European Commission "Stakeholders" meeting on mandate M313. PLT promoters deny complaints and ask for more tests. ÖVSV CD with PLT interference recordings was offered to EC representatives
- March 03: A EUROCOM delegation meets EC in Brussels. EC asks for proof of interference in the real world
- April 03: Dutch and Belgian HF users meet EC representative (Mark Bogers) in Hilversum. A demonstration of Inhouse PLT was given. Mark Bogers stated that the EC wishes industry to launch large scale tests and invites HF users to suggest test conditions
- May 03: NUON utilities stops PLT test in Arnhem (NL). The system is not competitive in areas where Cable-TV and ADSL are available.

5. New proposed draft standard for telecommunications networks under EC Mandate 313 (G4JKS and OZ8CY)
Hilary G4JKS reported on the JWG ETSI/CENELEC held 23/24 July 2003.

This meeting was also attended by HaJo Brandt DJ1ZB and Mike Zwingl OE3MZC.

For network radiation, three options are proposed, for consideration by National Standardisation Organisations (NSO's) :

- No radiated limits at all
- The original in the draft German
- NB30 (nearly 30dB lower)

The IARU proposal to include amateurbands as safety of life frequencies was accepted. Limits suitable to protect these frequencies are proposed as:

- NB30 – 20dB for all S&E frequencies HF (S&E = Safety and Emergency)
- NB30 – 10 dB for S&E frequencies above 30 MHz
- NB30 30dB for "critical" frequencies HF

The final document will go to national committees for comment.

Following this presentation participants gave their views on the current situation. Agreed action items are listed below.

6. PLT trials and interference (OZ8CY)

OZ8CY asked for as many as possible interference complaints to be sent to the authorities.

NSO's will have to vote on a CENELEC proposal for networks harmonisation. Also non members of ETSI or CENELEC can forward comments to National Standardisation Organisations.

OZ8CY asked for as many comments as possible to be sent to the NSO's. The overall strategy is to delay PLT as long as possible.

OZ8CY mentioned the danger of the draft new EMC Directive which allows manufacturers to put equipment on the market on a simple declaration of conformity, without control by a certified body. Means should be sought to stop this procedure or to alter the content of the new directive.

ON4WF proposed to introduce an amendment to the text which is now examined by the ITRE parliamentary committee. An MEP can introduce such an amendment. ON4WF will ask MEP Fernando Fernandez-Martin if he agrees to work on this. OZ8CY will write a proposal.

7. High level political pressure (G4JKS)

- Make contact with your NSOs once we confirm the draft produced by the JWG is out for consultation (ON4WF will communicate details)
- Ask very strongly that the NSOs accept the “NB30” limits and the inclusion of amateur frequencies as “safety & emergency” frequencies
- If PLT trials are started in your country, express concern to your administration
- Insist that you are allowed to participate in the trials, and measure the interference caused (we can provide help on how to do this)
- Report cases of interference to national administrations
- Make contact with other HF users and get them to work with you
- Write, expressing serious concern about emission levels and the serious interference potential, to

  Erkki Liikanen,
  Commissioner for Enterprise and the Information Society,
  Rue de la Loi 200,
  B-1049 Brussels, Belgium

8. Contributions from the floor

Wendelin Reuter wrote a letter to powerline companies with a request for non polluted power.

OE3MZC: When participating to a field trial do not sign anything to keep results confidential.

9. Action points

- DK3NG will draft a petition to the EU Parliament called “PLC Considerations” with help from HB9CVQ. ON4WF will circulate this petition for comments through IARU.
- OE3MZC will develop a paper on testing and on how to report interference from PLT.
- OE3MZC will provide a draft presskit for societies to use. G3BJ will do the necessary improvements. The results will be reported to OZ8CY.
- Remarks on the EMC Directive will be drafted by OZ8CYand sent to ON4WF (URGENT)
- OZ8CY will make an input to CISPR I to propose revision of the limits. OZ8CY will find a amateurfriendly standardization authority (Norway?) that will forward this input. DL3LAE will do a presentation during the NRRL AGC.

- G3BJ to send Member Societies a letter asking for competent EMC specialists (for input to national standardization committees). The list will go to OZ8CY.
- All are asked to identify people to spread the word, coordinated by IARU (possible seminar)

10. To close the meeting

ON4WF closed the meeting

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

07.08.2003

EC calls for contributions to a Workshop on the PLT issue

1. PLT Workshop

The IARU Region 1 EUROCOM WG Chairman has received a letter from the European Commission, announcing a PLT Workshop on 16 October 2003 and calling for written contributions. See annex.

The planned Workshop is meant for representatives of the EU Member States and various national authorities.

The objective is a broader dialogue *to ensure a regulatory level playing field for all technologies, taking due account of the interests of various stakeholders as well as the broader societal and economic interests of Europe.*

2. Written contributions

The Commission would welcome any *written contributions and/or position statements* of the interested parties.

The Commission intends *to compile a summary paper of the contributions received and forward this, along with the written contributions, to the attendees of the joint workshop.*

EMC WG Chairman Christian Verholt, OZ8CY has asked Hilary Claytonsmith, G4JKS - who accepted - to draft a contribution on behalf of the International Amateur Radio Union, Region1.

3. Input

Since the beginning of the PLT saga, we have gathered considerable information on the PLT issue.

On several occasions, starting with the PLT Workshop convened by the European Commission March 5th 2001, we have presented technical arguments to the Commission, proving the incompatibility of PLT with radio services.

Other HF users such as the broadcasters, the military and the security services have also objected to the introduction of broadband Powerline Telecommunications.

It is not an easy task for Hilary to select the most meaningful arguments, technical as well as societal and economic, to defend the position of the amateur radio service in this debate.

If you wish, please forward your advice to <g4jks@btinternet.com> and help Hilary without delay.

4. Participation to the PLT Workshop

It is not clear yet who will be invited by the EC to the October 2003 Workshop.

We will try to have an IARU delegation participating.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex: 1

EUROPEAN COMMISSION
ENTERPRISE DIRECTORATE-GENERAL
INFORMATION SOCIETY DIRECTORATE-GENERAL

Mechanical and electrical equipment (including telecom terminal equipment)
TCAM Secretariat
Communications Services: Policy and Regulatory Framework

Brussels, 31.07.2003* 7695
ENTR/G3/TB/mm/D(03) 835420

Gaston Bertels
International Amateur Radio Union-
Region 1
Av. Paul Heymans 117/29
B-1200 Brussels

Subject: Powerline Communications

Dear Mr Bertels,

As you are probably aware, the European Commission is organising a broader dialogue between representatives of EU Member States and various national authorities on Powerline Communications (PLC). The objective of our work is to ensure a regulatory level playing field for all technologies, taking due account of the interests of various stakeholders as well as the broader societal and economic interests of Europe. The dialogue has been welcomed by Member States and national regulatory and market surveillance authorities.

As a next step, we plan to hold a joint workshop of representatives of Member States and authorities on 16 October 2003. In preparation for that workshop, we would welcome any written contributions and/or position statements from your organisation and from individual members of your organisation. The Commission services will compile a summary paper of the contributions received and forward this, along with the written contributions, to the attendees of the joint workshop.

Contributions should be sent before the 1 October 2003 to:

Thierry Brefort
European Commission
B-1049 BRUXELLES

Yours sincerely,

Bernd Langeheine Evangelos Vardakas

Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - Belgium. Telephone: (32-2) 299 11 11.
Office: BU 33 7/20. Telephone: direct line (32-2) 2968537. Fax: (32-2) 2968391.

E-mail: leo.koolen@cec.eu.int, thierry.brefort@cec.eu.int

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

23.09.2003

New EMC Directive submitted to amendments in ITRE Committee

1. Proposed EMC Directive (*COM(2002) 759)*

A revision of EMC Directive **89/336/EEC** has been going on since several years.

In the first version of the draft, the exception of amateur radio home built equipment had been omitted. We discussed this point with the relevant service of the European Commission (Directorate Enterprise), insisting on the importance of the exception for our experimental radio service.

In the next version the exception had been restored and it has been maintained in the presently proposed EMC Directive:

Article 1
Subject matter and scope

.....
2. This Directive shall not apply to:
(a) equipment covered by Directive 1999/5/EC;
(b) aircraft and equipment intended to be fitted into aircraft;
(c) radio equipment which is not commercially available, including kits of components to be assembled by radio amateurs, within the meaning defined in the Radio Regulations adopted in the framework of the Constitution and Convention of the International Telecommunication Union, as well as commercial equipment modified by and for the use of such radio amateurs.

The proposed EMC Directive has been submitted by the Commission to the European Parliament. The President of the Parliament has forwarded the proposal to several parliamentary committees, the main being the committee for Industry, External Trade, Research and Energy (ITRE).

2. Amendments

At the joint IARU Region 1 EMC/EUROCOM meeting convened at Ham Radio, Friedrichshafen June 2003, Christian Verholt, OZ8CY, EMC WG Chairman, expressed his concern about the draft EMC Directive. He submitted a request to the EUROCOM chairman, asking for exploring the possibility to undertake action in order to postpone the adoption of the EMC Directive.

As the proposal was already in the parliamentary pipeline, the only way to influence the procedure was to ask an MEP to submit amendments to the ITRE committee.

July 2003, MEP Fernando Fernandez-Martin, EA8AK, accepted to submit two amendments. These amendments have been included in the first draft Report of rapporteur Luis Berenguer Fuster (see Annex NS0903A1.rtf, Amendments 13 and 18).

Several other amendments have been submitted, mainly by:

- EICTA European Information, Communications and Consumer Electronics Technology Industry Association

- ECCA European Cable Communications Association.

3. Meeting in Werl, Germany with MEP's

The DARC section of Werl, near Dortmund, had invited candidates to the European elections of June 2004 to a meeting, September 19, 2003. IARU Region 1 EUROCOM WG Chairman Gaston Bertels, ON4WF was also invited.

Four MEP's participated to the meeting.

Ingo Dittrich, DK9MD, EMC manager of the German radio broadcast union (presently retired) presented the vues of the broadcasters on the menace of PLC for their service.

Ulfried Ueberschar, DJ6AN, DARC EMC WG, further discussed PLC aspects and commented the draft EMC Directive.

Gaston Bertels, ON4WF, commented the amendments submitted to ITRE.

Among the four participating MEP's two were substitute members of the ITRE committee:
- Dr Peter Liese, CDU (ITRE)
- Helmut Kuhne, SPD (ITRE)
- Udo Muellers, ecologist
- Dietmar Brockes

The MEP's asked for the text of other amendments to the EMC Directive we had prepared. They would examine them for possible submission.

4. Further amendments

We have prepared two further amendments:

AMENDMENT
Article 2
Definitions
1.(e)

(e) "Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of equipment;	(e) "Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of a device, unit of equipment or system. An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself;

Justification

The International Electrotechnic Committee (IEC*) has defined the concept of "electromagnetic disturbance" (IEC50,* International Electrotechnic Vocabulary (IEV), *Chapter 161: Electromagnetic compatibility, 2.1.6).*

This definition has been included in the current Council Directive 89/336/EEC of May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility. See 89/336/EEC Article 1, 2).

This definition shall be maintained in the new Directive to guarantee the correct interpretation of the concept.

AMENDMENT
Article 2
Definitions
1. (h) New

	(h) "Electromagnetic environment" means the whole of all electromagnetic phenomena observable in a given location.

.

Justification

The International Electrotechnic Committee (IEC*) has defined the concept of "electromagnetic environment" (IEC50,* International Electrotechnic Vocabulary (IEV), *Chapter 161: Electromagnetic compatibility, 2.1.5).*

This definition, which distinguishes the concept of "electromagnetic environment" from the concept of "place, location", is important for the correct interpretation of the electromagnetic compatibilty concept itself.

It should be included in the new Directive.

MEP Dr Peter Liese has asked the text of these two amendments. He will probably submit them to the ITRE committee.

5. Other amendments

Suggestions for other amendments should be forwarded without delay to the undersigned.

We will submit them to IARU Region 1 EMC WG Chairman Christian Verholt, OZ8CY for appreciation.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex: NS0903A1.rtf

EUROPEAN PARLIAMENT

1999 *2004*

Committee on Industry, External Trade, Research and Energy

29 August 2003 PE 123.456/1-20

AMENDMENTS 1-20

Draft report **(PE 123.456)**
Luis Berenguer Fuster
on the approximation of the laws of the Member States relating to electromagnetic compatibility

Proposal for a directive (COM(2002) 759 – C5-0634/2002 – 2002/0306(COD))

Text proposed by the Commission	Amendments by Parliament

Amendment by EICTA

Amendment 1
Recital 14

(14) Manufacturers of equipment intended to be connected to networks should construct such equipment in a way that prevents networks from suffering unacceptable degradation of service when used under normal operating conditions. Network operators should construct their networks in such a way that manufacturers of equipment liable to be connected to networks do not suffer a disproportionate burden in order to prevent networks from suffering an unacceptable degradation of service. The European standardisation organisations should take due account of that objective ***(including the cumulative effects of the relevant types of electromagnetic phenomena)*** when developing harmonised standards.	(14) Manufacturers of equipment intended to be connected to networks should construct such equipment in a way that prevents networks from suffering unacceptable degradation of service when used under normal operating conditions. Network operators should construct their networks in such a way that manufacturers of equipment liable to be connected to networks do not suffer a disproportionate burden in order to prevent networks from suffering an unacceptable degradation of service. The European standardisation organisations should take due account of that objective when developing harmonised standards.

Or. en

Justification

The standardisation bodies already consider where relevant the cumulative effects of parameters when setting limits in their standards. This statement seems to indicate that something further is required, which is not the case.

Amendment by ECCA

Amendment 2
Recital 14 a (new)

(14a) Special measures, not necessarily limited to technical regulations, provide the flexibility for Member States in specific circumstances to regulate existing or predicted Electromagnetic Disturbances, which may adversely impact a defined geographical location, a public electronic communications network or a receiving or transmitting station used for safety purposes. In the latter case, geographical as well as technical factors may be pertinent. Because of the specific and individual nature of these special measures, Member States are required to notify the Commission of all such special measures taken in accordance with the provisions of the Directive.

Or. en

Justification

Article 4 provides for special measures, which a Member State may take in order to address specific problems including possible interference to safety related applications. However there is currently no text, which explains what a special measure entails. ECCA has learnt of one extreme interpretation from a Member State, which if applied across Europe, in the depth and detail suggested, would in effect permit each country to introduce national EMC limits. A common understanding of a special measure is therefore required.

Amendment by EICTA

Amendment 3
Article 1, paragraph 4 a (new)

(a) This Directive shall not apply to combinations of apparatus in which each unit is individually placed on the market following the provisions laid down herein for apparatus.

Or. en

Justification

Amendment by EICTA

Amendment 4
Article 2, paragraph 1, point (b)

(b) "Apparatus" means any finished appliance, or combination thereof ***made commercially available as a single functional unit,*** intended for the end user, and liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance;	(b) "Apparatus" means any finished appliance, or combination thereof intended for the end user, and liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance;

Or. en

Justification

The term 'single functional unit' should be avoided since the meaning is not unambiguously clear.

Amendment by ECCA

Amendment 5
Article 2, paragraph 1, point (e)

(e) "Electromagnetic disturbance" means any electromagnetic phenomenon which may	(e) "Electromagnetic disturbance" means any electromagnetic phenomenon ***such as electromagnetic noise, an unwanted signal***

degrade the performance of equipment;

or a change in the propagation medium itself, which may degrade the performance of equipment ***and related services***;

Or. en

Justification

It is currently unclear what is construed as a disturbance. ECCA has proposed that the note from the IEC definition should be included in the body of the definition as well as a reference to the possible degradation of services delivered making use of the equipment.

Amendment by EICTA

Amendment 6
Article 2, paragraph 1, point (ga) new

(ga) "End user" is any user who takes the apparatus into service without modifying, assembling or processing it in an industrial or professional operation.

Or. en

Justification

The concept of "end user" is used to specify and limit the scope in Article 2, thus a clear definition of an end user is needed.

Amendment by ECCA

Amendment 7
Article 2, paragraph 1, point (ga) (new)

(ga) "Safety Purposes" means any electronic communications application used permanently or temporarily for the safeguarding of human life.

Or. en

Justification

Safety services and/or safety purposes has provoked considerable debate and discussion in the context of Article 4 of the proposal and Mandate 313 – to adopt a harmonised standard for networks - from the Commission to the Standardisation Bodies. ECCA believes that the scope of "safety purposes" requires definition in the context of this Directive. To extend the definition to property would in ECCA's opinion generate an onerous situation for network operators.

Amendment by EICTA

Amendment 8
Article 2, paragraph 2, point (b)

(b) "ready-made connecting devices" intended for connection to an apparatus by an end user for the transmission of signals, which are placed on the market separately from such apparatus, and which are liable to generate or transmit electromagnetic disturbance when connected to it.	***deleted***

Or. en

Justification

Ready-made connecting devices should not be included. Where it is necessary to remove these from the market, there are many possibilities for Member States to do so under existing consumer protection laws or legislation related to sale of goods. The measures proposed in the revised EMC directive are not proportionate. Appropriate harmonized standards for the assessment of ready-made connecting devices do not exist. The cost for such standardisation does not correspond to the needs of the market and the delay until these standards are available would be unacceptable for industry and the consumer.

Amendment by ECCA

Amendment 9
Article 4, paragraph 2

2. The requirements of this Directive shall not prevent the application in any Member State of special measures, concerning the putting into service or use of equipment, which have been taken in respect of a specific site in order to overcome an existing or	2. The requirements of this Directive shall not prevent the application in any Member State of special measures, concerning the putting into service or ***the*** use of equipment, which have been taken in respect of a specific site in order to overcome an existing or

predicted electromagnetic compatibility problem, or ***for safety purposes*** to protect the public ***telecommunications*** networks or receiving or transmitting stations used. Member States shall notify those measures in accordance with the procedure laid down in Directive 98/34/EC.	predicted electromagnetic compatibility problem, or to protect the public ***electronic communications*** networks or ***to protect specific*** receiving or transmitting stations used ***for safety purposes***. Member States shall notify those measures in accordance with the procedure laid down in Directive 98/34/EC.

Or. en

Justification

Article 4§2 remains slightly ambiguous but should in any event be interpreted in a restrictive manner. In addition, to ensure alignment with the new regulatory electronic communications framework and to pursue a technology neutral approach, the reference to public telecommunications networks should be replaced by a reference to public electronic communications networks. Furthermore, the ECCA's proposed revision attempts to underline the specific nature of this provision as well as limiting the scope to safety purposes.

Amendment by EICTA

Amendment 10
Article 6, paragraph 1

1. The compliance of equipment with the relevant harmonised standards whose references have been published in the *Official Journal of the European Communities* shall raise a presumption, on the part of the Member States, of conformity with the ***essential*** requirements referred to in Annex I to which such standards relate.	(NOTE: This change is only needed in case our proposal for re-organising Annex I, see further below, is not agreed.) 1. The compliance of equipment with the relevant harmonised standards whose references have been published in the *Official Journal of the European Communities* shall raise a presumption, on the part of the Member States, of conformity with the ***protection*** requirements referred to in Annex I to which such standards relate.

Or. en

Justification

Article 6.1 states that presumption of compliance with the essential requirements is granted where a harmonised standard is used. A logical consequence of this is that presumption is not given for other essential requirements.

Because the whole Annex I is called "essential requirements" the issue of presumption is relevant to all parts of it. However, the existing harmonised EMC standards only cover Part 1 (the protection requirements). The consequence is that suppliers cannot enjoy presumption of conformity with the "essential requirements", until new standardisation work is completed, resulting in revised or new harmonised standards. The cost for such standardisation does not correspond to the needs of the market and the delay until these standards are available would be unacceptable for industry and the consumer.

Apart from the issue of presumption is the question of what exactly to standardise. The way Annex I, parts 2-6 are formulated there is in practice nothing to write in a standard, except to repeat the text of the directive. In particular the "information requirements" (Part 4) is an area where there is very little (if any) need for harmonisation. With the ever-increasing globalisation which is crucial for the industry, Europe should not invent unique standards for 'information provision'. Any such standardisation activity should be initiated through a true market need and not mandated through legislation.

We understand that CENELEC intends to continue producing standards covering only the technical protection requirements and not the totality of the essential requirements given in Annex I. Other essential requirements will need to be implemented directly by the manufacturers, as standards are not expected to be of any help or to give any added value in order to implement those direct requirements.

One possible area creating an unclear interpretation is in Part 4(d) regarding the provision of a "clear indication". However, such indication is meant for the end user but would be of little value if it could take any possible form, which would be the case if it were left for standardisation (a result of New Approach – the use of a standard is voluntary and a manufacturer may use the text of the directive instead). A manufacturer could easily claim that his warning indication is as good as the standardised one, but that would just confuse the end user (and also complicate the Market Surveillance activity) thus completely failing the intent with the requirement.

Amendment by EICTA

Amendment 11
Article 7, paragraph 2, subparagraph 2

The technical documentation may include a report from the notified body referred to in Article 11 confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I. The manufacturer may determine the subject and depth of the assessment to be carried out.	***At the manufacturer's discretion,*** the technical documentation may include a report from the notified body referred to in Article 11 confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I. The manufacturer may determine the subject and depth of the assessment to be carried out.

Or. en

Justification

Experience has shown that the use of supplier's declaration of conformity without 3rd party intervention, complemented by market surveillance, is the best route for conformity assessment. It is normal in directives to offer alternative routes for compliance involving the use of a certain level of 3rd party Notified Body for those manufacturers who feel that this is beneficial for them. It is however important that this alternative does not undermine the legal certainty for a manufacturer not using the services of a Notified Body. This is in line with the Commission's statement in the Explanatory Memorandum where it is said that a manufacturer can ask for the intervention of a Notified Body "if he considers such an intervention appropriate".

Unfortunately, the present wording of Article 7 can be interpreted as giving a legal preference for the use of a Notified Body.

Amendment by AeA

Amendment 12
Article 7, paragraph 2, subparagraph 2

The technical documentation may include ***a*** report from ***the*** notified body referred to in Article 11 confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I. The manufacturer may determine the subject and depth of the assessment to be carried out.	***The manufacturer has the choice to*** include ***his own*** report confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I, ***or to include a report*** from ***a*** notified body referred to in Article 11 ***for this purpose.*** The manufacturer may determine the subject and depth of the assessment to be carried out.

Or. en

Justification

Experience has shown that the use of supplier's declaration of conformity without 3rd party intervention, complemented by market surveillance, is the best route for conformity assessment. It is normal in directives to offer alternative routes for compliance involving the use f a certain level of 3rd party Notified Body for those manufacturers who feel that this is beneficial for them. It is however important that this alternative does not undermine the legal certainty for a manufacturer not using the services of a Notified Body. This is in line with the Commission's statement in the Explanatory Memorandum where it is said that a manufacturer can ask for the intervention of a Notified Body "if he considers such an intervention appropriate".

Unfortunately, the present wording of Article 7 can be interpreted as giving a legal preference for the use of a Notified Body. A more neutral wording is needed.

Amendment by Fernandez

Amendment 13
Article 7, paragraph 2, subparagraph 2

The technical documentation ***may*** include a report from the notified body referred to in Article 11 confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I. ***The manufacturer may determine the subject and depth of the assessment to be carried out.***	***In cases where the manufacturer has not applied harmonised standards, or has applied them only in part, the*** technical documentation **shall** include a report from the notified body referred to in Article 11 confirming the compliance of the apparatus with the relevant essential requirements set out in Annex I.

Or. en

Justification

Item 2.3.3 of the Explanatory Memorandum states:

"Harmonised standards now exist for almost all apparatus. The self-declaration procedure by means of applying harmonised standards is now used in 95% of cases. In practice, bodies which are also competent bodies are often asked to confirm compliance with harmonised standards".

In only 5% of the cases, manufacturers do not apply harmonised standards or apply them only in part and instead produce technical construction files. The current EMC Directive requires these construction files to include a technical report or certificate issued by a competent body.

This procedure guarantees the technical quality and the reliability of the technical construction files and consequently of the products themselves.

If a report by a notified body were not required for technical construction files, market competition would incite manufacturers not to refer anymore to harmonised standards and to put on the market CE marked products on the sole faith of uncertified technical construction files.

This would create unfair competition. Moreover, the proliferation of products of lesser quality would generate complaints, forcing the market surveillance authorities to withdraw from the market many more products than under the current EMC Directive.

Harmonised standards have proven to provide "a level playing field for all" as the requirements are coherent for all types of equipment. A Simpler Legislation for the Internal Market (SLIM) would be counterproductive if it weakened the position of the harmonised standards.

Amendment by ECCA

Amendment 14
Article 12, paragraph 3

3. Member States shall ***set out the necessary***	3. ***The owner of a fixed installation is***

provisions for the identification of the person or persons responsible for the establishment of compliance of a fixed installation with the relevant essential requirements.

responsible for the compliance of a fixed installation with the essential requirements. Member States shall ***determine the ownership of a fixed installation in accordance with national legislation.***

Or. en

Justification

There is a need for a clear statement that the owner (including private persons) of any network is required to meet the essential requirements of the EMC Directive as transposed into national legislation. This amendment underlines that ownership criteria is generally defined in national legislation. Furthermore the revised text maintains the need for Member States to specifically identify the persons responsible for in-home networks in accordance with national juridical provisions.

Amendment by Agilent

Amendment 15
ANNEX I Essential requirements

Paragraph 2.2, subparagraph 4

In cases where the apparatus can take different configurations, the electromagnetic compatibility assessment shall confirm that the apparatus meets the protection requirements set out in Point 1 in ***all possible*** configurations identified by the manufacturer as representative of normal use in its intended application.

In cases where the apparatus can take different configurations, the electromagnetic compatibility assessment shall confirm that the apparatus meets the protection requirements set out in Point 1 in ***such*** configurations identified by the manufacturer as representative of normal use in its intended application.

Or. en

Justification

This amendment will allow manufacturers of complex products to carry out assessments against the protection requirements and to contain the test time within reason.

In addition, it will remove the inconsistency between the main text and the texts found in the Preamble and EMC Guidelines.

Amendment by EICTA and EICTA AeA

Amendment 16
ANNEX I Essential requirements

1. PROTECTION REQUIREMENTS	1. Retain as is
2. SPECIFIC REQUIREMENTS FOR APPARATUS	
2. Electromagnetic compatibility assessment:	2. Move to Article 7, between 7(1) and 7(2) = Article 7(1.a)
3. External devices	3. Move to Article 7, between 7(1) and 7(2) = Article 7(1.c)
4. Information requirements	4. Move to a new Article following Article 7 = Article 7bis
(b) Each apparatus shall be accompanied by the name and address of the manufacturer ***and***, if he is not established within the Community, the name and address of his authorised representative or the person established within the Community responsible for placing the apparatus on the Community market;	(b) Each apparatus shall be accompanied by the name and address of the manufacturer ***or***, if he is not established within the Community, the name and address of his authorised representative or the person established within the Community responsible for placing the apparatus on the Community market;
(d) Apparatus for which compliance with the protection requirements is not ensured in residential areas shall be accompanied by a clear indication of this restriction of use.	(d) Apparatus for which compliance with the protection requirements is not ensured in residential areas shall be accompanied ***(e.g., in the documentation)*** by a clear indication of this restriction of use.
5. Ready made connecting devices:	5. Delete
3. SPECIFIC REQUIREMENTS FOR FIXED INSTALLATIONS	
6. Installation and intended use of components	6. Move to Article 12, between 12(1) and 12(2) = Article 12(1.a)

Or. en

Justification

See discussion regarding Article 6 above. Points 2-6 should not form part of the essential requirements (i.e. requirements for which harmonised standards are needed to get presumption).

Furthermore, for clarity in reading the Directive, Points 2-6 should be moved to the relevant Articles in the directive, dealing with the subjects in question.

Point 4(b): Traceability is an important issue, but it should be proportionate. Information provision and marking should not vary between directives, and should be consistent with the Blue Guide. Only one name and address should be required.

In Point 4(d) it should be made clear that 'clear indication' means information in the documentation provided with the equipment.

Point 5 (ready-made connecting devices) should be deleted. See justification for Article 2 above.

Amendment by EICTA and EICTA AeA

Amendment 17
ANNEX II, Paragraph 1, indent 4

- on a voluntary basis, the manufacturer may include in the technical documentation a report from a notified body ***confirming the conformity of the apparatus with the relevant essential requirements set out in Annex I***.	- on a voluntary basis, the manufacturer may include in the technical documentation a report from a notified body ***as described in Article 7(2)***.

Or. en

Justification

To capture the fact that the Notified Body report may only cover part(s) of the essential requirements, it is better to refer to the text given in Article 7(2) on this subject.

Amendment by Fernandez

Amendment 18
ANNEX II, Paragraph 1, indent 4

- ***on a voluntary basis***, the manufacturer ***may*** include in the technical documentation a report from a notified body confirming the conformity of the apparatus with the relevant essential requirements set out in Annex I.	- ***where the manufacturer has not applied harmonised standards, or has applied them only in part***, the manufacturer ***shall*** include in the technical documentation a report from a notified body confirming the conformity of the apparatus with the relevant essential requirements set out in Annex I.

Or. en

Justification

This amendment is a corollary of the amendment of Article 7.2 on the conformity assessment procedure for apparatus.

If a report by a notified body were not required for technical construction files, market competition would incite manufacturers not to refer anymore to harmonised standards and to put on the market CE marked products on the sole faith of uncertified technical construction files.

This would create unfair competition. Moreover, the proliferation of products of lesser quality would generate complaints, forcing the market surveillance authorities to withdraw from the market many more products than under the current EMC Directive.

Harmonised standards have proven to provide "a level playing field for all" as the requirements are coherent for all types of equipment. A Simpler Legislation for the Internal Market (SLIM) would be counterproductive if it weakened the position of the harmonised standards.

Amendment by EICTA and EICTA AeA

Amendment 19
ANNEX II, Paragraph 2, indent 3

- name and address of the manufacturer ***and***, where applicable, the name and address of his authorised representative within the Community;	- name and address of the manufacturer ***or***, where applicable, the name and address of his authorised representative within the Community;

Or. en

Justification

Traceability is an important issue, but it should be proportionate. Information provision and marking should not vary between directives, and should be consistent with the Blue Guide. Only one name and address should be required.

Amendment by EICTA and EICTA AeA

Amendment 20
ANNEX V

1. The correct application of all the relevant harmonised standards whose references have been published in the *Official Journal of the European Communities* shall be equivalent to the carrying out of the electromagnetic	1. Move to Article 7, between 7(1) and 7(2) = Article 7(1.b)

compatibility assessment referred to in Point 2 of Annex I.	
2. Compliance with a harmonised standard means conformity with its provisions (e.g. limits) and demonstration thereof by the methods the harmonised standard describes or refers to.	2. Delete
3. Presumption of conformity via application of harmonised standard(s) is limited to the scope of the harmonised standard(s) applied and the relevant essential requirements covered by such harmonised standard(s).	3. Delete
4. Harmonised standards are to be selected and used in accordance with the provisions of the relevant standardisation documents. The reference to those documents shall be published in the *Official Journal of the European Communities*.	4. Move to Article 6, between 6(1) and 6(2) = Article 6(1.a)

Or. en

Justification

Points 1 and 4 *should be written together with the obligation to which they refer to increase clarity.*

Points 2 and 3 *seem to state the obvious. However, a literal reading of point 2 could have as a consequence that it is impossible for testing laboratories to claim that they have used the harmonised standard. It is very often necessary to slightly adapt the test method described in a harmonised standard so that the apparatus is correctly exercised during the test. Even the most detailed EMC product standard cannot take into account the peculiarities of all apparatus within its scope – requiring such details in standards would result in a very large number of harmonised standards (with narrow scopes), or a very large testing part to describe all possible situations. This would be contrary to what is needed today where convergence of products calls for standards that are more general rather than ones that are more detailed.*

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

16.10.2003

EC Workshop on PLT - 16 October 2003

1. Workshop

The EC convened a PLT Workshop to review progress on Mandate 313, more precisely the PLT aspect.

Participation to the Workshop was strictly limited to representatives of the Member States and regulatory authorities. No representatives of industry, nor users groups participated.

Representatives of the future Members States were also present, as well as observers of Switzerland and Turkey.

The Workshop was initiated by DG Enterprise, but delegates of DG Information Society and DG Economy and Finances were also present.

Representatives of CENELEC and ETSI participated to the Workshop.

2. Written contributions

The EC had invited interested parties to submit written contributions.

These contributions can be downloaded from the website:

<http://forum.europa.eu.int/>

Go to:
- Enterprise DG
- TCAM

Search for Workshop.

IARU Region 1 submitted a contribution prepared by Hilary Claytonsmith, G4JKS.

A CD with the contributions was offered to the participants to the Workshop.

3. Debate

The Workshop noted that the JWG CENELEC/ETSI has not yet succeeded to determine a norm for PLT.

Several representatives called for such a norm, insisting that the spectrum users be properly protected.

Mandate 313 will be extended to allow more time to the JWG. But the Commission wishes to have a norm for PLT within 6 or 7 months.

Meanwhile, the German NB30 could be used by the Member States as a provisional norm.

In Spain, the "Consejo de la Comision de las Telecomunicaciones" has authorised three major power utilities "Endesa", "Iberdrola" and "Union Fenosa" to distribute PLC service to their customers. The Spanish representatives stated that the licence can be suspended or even withdrawn in case the radiation norm is not met.

In Finland power utilities are marketing PLT services in three cities:

- Turku, the third largest city in Finland
- Pori, a small town on the west coast
- Kuopio, in the eastern part of Finland.

The Workshop observed that there are few complaints in places where PLT is tested. There have been complaints of radio amateurs in Austria and in the Netherlands.

In Turku there was also a complaint of a radio amateur. The spectrum control service observed that PLT interference was indeed preventing the normal operation of this amateur radio station.

In another country a complaint of a cable TV operator suffering PLT interference has been noted.

Inhouse PLT was also reviewed by the Workshop. Laboratories in Manchester, Duisburg and Essen did measurements and noted considerable radiation.

4. Next Workshop

The next Workshop will be devoted to seeking consensus on a European PLT norm.

A tentative date is February 2004.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

28.10.2003

The Spanish Amateur Radio community reacts to PLT

1. PLT deployment in Spain

Since several months small scale PLT trials are going on in the Zaragoza region.

As announced in the preceding EUROCOM Newsletter, the "Consejo de la Comision de las Telecomunicaciones" has presently authorised three major power utilities "Endesa", "Iberdrola" and "Union Fenosa" to distribute PLC service to their customers.

URE (Union de Radioaficionados de España), the Spanish IARU society, has started a coordinated action to protect the amateur radio service (and consequently all the other spectrum users) against the detrimental effects of PLT radiation.

Xavier Paradell, EA3ALV, vice president of the « Unión de Radioaficionados de Barcelona » URB and Editor of *CQ Radio Amateur* (Spain), wrote us the following letter.

2. Letter of Spain

Dear Gaston,

About PLC, a strong movement against it has been started in Spain, led by the *Union de Radioaficionados de España* (URE).

Accurate measurements done in Zaragoza have demonstrated the high level of interference (around –61 dBm), masking practically most ham signals in the 30, 20 and 15 meter bands.

Consequently, the URE delegate in Zaragoza has prepared a complaint, accompanied by a detailed technical report showing the interference levels measured at several places in the city.

This complaint –the first one in Spain- will be submitted tomorrow to the *Inspección de Telecomunicaciones* of Zaragoza.

URE has created a special electronic account <plc@ure.es> and a .ftp site, as well as a distribution list in order to keep the members of the Spanish working group informed of all news and actions taken.

Special care will be applied, as per your recommendation, to document complaints with technical reports, accurate measurements and precise localisation of zones affected and probable sources of noise.

From my side, CQ (Spain) published, in the September issue Editorial, a documented and strong claim against PLC, written by an Telecommunications Engineer working at *Telefonica de España*. Furthermore, in the November issue will appear another Editorial, still more forcible, written by myself.

And EVERY following month, CQ Spain will devote one or more pages to the struggle for the defence of our bands.

Best 73!

Xavier

3. Coordination

PLT promotors claim that there is no problem with their technology since there are no complaints.

Indeed, up till now relatively few complaints have been submitted. As far as short wave broadcast is concerned, this can be explained by the difficulty for the listeners to identify the kind of interference they are plagued with.

To the contrary, amateur radio licencees have the technical skills to detect the source of this unwanted radiation and to present documented reports.

A coordinated effort on all levels, national as well as international, is needed to save the radio spectrum where it is under fire. Several IARU societies have already taken action and cooperate within the IARU Region 1 EMC working group. The initiative taken by URE is utmost appropriate.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTER

2004

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

04.03.2004

ITRE Committee adopts amendments to New EMC Directive

1. Reminder

The EUROCOM Newsletter of 23.09.2003 reviewed the revision of EMC Directive **89/336/EEC** which has been going on since several years.

Our efforts for the protection of the radio spectrum users and specially of the amateur radio service were highlighted:

- exemption of amateur radio homebuilt equipment, including kits
- meeting in Werl, Germany with MEP's where EMC and PLC issues were presented
- steps undertaken to force a debate in the ITRE parliamentary committee
- EUROCOM amendments to the text of the new EMC Directive

2. Amendments adopted

In the last few months we have continuously worked together with several MEP to submit amendments to ITRE. As a result, ITRE chairman Berenguer Fuster finally accepted a public debate on these amendments.

The vote took place last week and several amendments we had drafted have been accepted:

- Article 2, paragraph 1, (e)
  "Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of equipment. ***An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself***;

- Article 2, paragraph 1, point (f a) (new)
  "Safety purposes" means the purposes of safeguarding human life ***or property;***

- Article 2, paragraph 1, point (g a) (new)
  "Electromagnetic environment"means the whole of all electromagnetic phenomena observable in a given location.

Moreover, an amendment had been submitted stating that radiobroadcast must be protected against electromagnetic disturbance. We asked MEPs Peter Liese and Helmut Kuhne to insist that the radio amateur service deserves the same protection.

The original amendment introducing the broadcast protection into the text of the Directive was rejected, but a statement was added to Recital 2 of the Directive and the protection of the amateur radio service was included:

- Recital 2
  Member States are responsible for ensuring that radio-communications, ***including radiobroadcast reception and the amateur radio service operating in accordance***

***with ITU radio regulations**, electrical supply and telecommunications networks, as well as equipment thereto, are protected against electromagnetic disturbance.*

Last but not least, the amendment in favour of amateur radio homebuilt equipment has been maintained:

- Article 1, paragraph 2, point (c)
  *radio equipment **used** by radio amateurs within the meaning defined in the Radio Regulations adopted in the framework of the Constitution and Convention of the International Telecommunication Union, **unless the equipment is available commercially. Kits of components to be assembled by radio amateurs and** commercial equipment modified by and for the use of radio amateurs **are not regarded as commercially available equipment**.*

3. Submission to the Plenary of the European Parliament

The amendments adopted by ITRE are presently submitted to the EU Parliament.

It is expected that the Plenary of the EU Parliament will vote on the amendments next Tuesday.

Although further amendments can still be presented in plenary session, this scenario is rather unlikely.

Once the amendments are adopted by the EU Parliament, they will be submitted to the European Commission which will finalize the text of the new EMC Directive. Further changes are still possible.

4. Thanks

Several MEPs accepted to submit amendments we drafted and to defend these texts during the debate in the ITRE parliamentary committee.

We are very grateful to:

- MEP Fernando Fernandez-Martin
- MEP Dr. Peter Liese
- MEP Helmut Kuhne

Other MEP's also supported our proposals.

Many thanks to all.

Several members of the EMC working groups within Region 1 gave us input for drafting amendments. Some of their suggestions are now underway to be incorporated into European law.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex: 1

EUROPEAN PARLIAMENT

1999 *2004*

Session document

FINAL
A5-0113/2004

25 February 2004

***I
REPORT

on the proposal for a European Parliament and Council directive on the approximation of the laws of the Member States relating to electromagnetic compatibility
(COM(2002) 759 – C5-0634/2002 – 2002/0306(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Luis Berenguer Fuster

Symbols for procedures

*	Consultation procedure *majority of the votes cast*
**I	Cooperation procedure (first reading) *majority of the votes cast*
**II	Cooperation procedure (second reading) *majority of the votes cast, to approve the common position* *majority of Parliament's component Members, to reject or amend the common position*
***	Assent procedure *majority of Parliament's component Members except in cases covered by Articles 105, 107, 161 and 300 of the EC Treaty and Article 7 of the EU Treaty*
***I	Codecision procedure (first reading) *majority of the votes cast*
***II	Codecision procedure (second reading) *majority of the votes cast, to approve the common position* *majority of Parliament's component Members, to reject or amend the common position*
***III	Codecision procedure (third reading) *majority of the votes cast, to approve the joint text*

(The type of procedure depends on the legal basis proposed by the Commission)

Amendments to a legislative text

In amendments by Parliament, amended text is highlighted in ***bold italics***. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

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PROCEDURAL PAGE

By letter of 23 December 2002 the Commission submitted to Parliament, pursuant to Article 251(2) of the EC Treaty, the proposal for a European Parliament and Council directive on the approximation of the laws of the Member States relating to electromagnetic compatibility (COM(2002) 759 – 2002/0306(COD)).

At the sitting of 29 January 2003 the President of Parliament announced that he had referred the proposal to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on Legal Affairs and the Internal Market for its opinion (C5-0634/2002).

The Committee on Industry, External Trade, Research and Energy appointed Luis Berenguer Fuster rapporteur at its meeting of 24 April 2003.

It considered the Commission proposal and the draft report at its meetings of 26 November 2003, 17, 18, 23 and 24 February 2004.

At the last meeting it adopted the draft legislative resolution unanimously.

The following were present for the vote: Luis Berenguer Fuster (chairman and rapporteur), Peter Michael Mombaur (vice-chairman), Gordon J. Adam (for Gary Titley), María del Pilar Ayuso González (for Jaime Valdivielso de Cué), Ward Beysen (for Gian Paolo Gobbo), Guido Bodrato, David Robert Bowe (for Norbert Glante), Gérard Caudron, Giles Bryan Chichester, Nicholas Clegg, Dorette Corbey (for Harlem Désir), Concepció Ferrer, Francesco Fiori (for Umberto Scapagnini), Jacqueline Foster (for Sir Robert Atkins), Cristina García-Orcoyen Tormo (for Angelika Niebler), Neena Gill (for Myrsini Zorba), Alfred Gomolka (for Elizabeth Montfort), Michel Hansenne, Hedwig Keppelhoff-Wiechert (for Werner Langen pursuant to Rule 153(2)), Bashir Khanbhai, Dimitrios Koulourianos (for Konstantinos Alyssandrakis), Helmut Kuhne (for Massimo Carraro), Rolf Linkohr, Eryl Margaret McNally, Erika Mann, Marjo Matikainen-Kallström, Ana Miranda de Lage, Giuseppe Nisticò (for W.G. van Velzen), Reino Paasilinna, Samuli Pohjamo (for Willy C.E.H. De Clercq), Godelieve Quisthoudt-Rowohl, Bernhard Rapkay (for Mechtild Rothe), Imelda Mary Read, Christian Foldberg Rovsing, Paul Rübig, Herman Schmid (for Marianne Eriksson pursuant to Rule 153(2)), Konrad K. Schwaiger, Esko Olavi Seppänen, Geoffrey Van Orden (for Paolo Pastorelli pursuant to Rule 153(2)), Alejo Vidal-Quadras Roca.

The Committee on Legal Affairs and the Internal Market decided on 20 February 2003 not to deliver an opinion.

The report was tabled on 25 February 2004.

DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

on the proposal for a European Parliament and Council directive on the approximation of the laws of the Member States relating to electromagnetic compatibility (COM(2002) 759 – C5-0634/2002 – 2002/0306(COD))

(Codecision procedure: first reading)

The European Parliament,

– having regard to the Commission proposal to the European Parliament and the Council (COM(2002) 759)[1],

– having regard to Article 251(2) of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C5-0634/2002),

– having regard to Rule 67 of its Rules of Procedure,

– having regard to the report of the Committee on Industry, External Trade, Research and Energy (A5-0113/2004),

1. Approves the Commission proposal as amended;

2. Calls on the Commission to refer the matter to Parliament again if it intends to amend the proposal substantially or replace it with another text;

3. Instructs its President to forward its position to the Council and Commission.

Text proposed by the Commission	Amendments by Parliament
Amendment1 Recital 2	
(2) Member States are responsible for ensuring that radio-communications, electrical supply and telecommunications networks, as well as equipment connected thereto, are protected against electromagnetic disturbance.	(2) Member States are responsible for ensuring that radio-communications, ***including radiobroadcast reception and the amateur radio service operating in accordance with ITU radio regulations***, electrical supply and telecommunications networks, as well as equipment connected thereto, are protected against electromagnetic disturbance.
Amendment 2	

[1] Not yet published in OJ.

Recital 11

(11) Where this Directive regulates apparatus, it should refer to finished apparatus commercially available for the first time on the Community market. Certain components or sub-assemblies should, under certain conditions, be considered to be apparatus if they are made available to the end-user. ***Ready-made connecting devices, although incapable of generating electromagnetic disturbance in isolation, may generate or transmit electromagnetic disturbance when connected to an apparatus and should therefore be considered to be apparatus for the purposes of this Directive.***	(11) Where this Directive regulates apparatus, it should refer to finished apparatus commercially available for the first time on the Community market. Certain components or sub-assemblies should, under certain conditions, be considered to be apparatus if they are made available to the end-user.

Amendment 3
Recital 13

(13) It is in the interest of the functioning of the internal market to have standards for the electromagnetic compatibility of equipment which have been harmonised at Community level; once the reference to such a standard has been published in the Official Journal of the European ***Communities***, compliance with it should raise a presumption of conformity with the relevant essential requirements, although other means of demonstrating such conformity should be permitted.	(13) ***Harmonised standards give expression to the generally acknowledged state of the art as regarding electromagnetic compatibility matters in the European Union.*** It is ***thus*** in the interest of the functioning of the internal market to have standards for the electromagnetic compatibility of equipment which have been harmonised at Community level; once the reference to such a standard has been published in the Official Journal of the European ***Union***, compliance with it should raise a presumption of conformity with the relevant essential requirements, although other means of demonstrating such conformity should be permitted. ***Compliance with a harmonised standard means conformity with its provisions and demonstration thereof by the methods the harmonised standard describes or refers to.***

Amendment 4
Recital 20

(20) It is not pertinent to carry out the conformity assessment of apparatus placed on the market for incorporation into a given fixed installation, and otherwise not commercially available, in isolation from the fixed installation into which it is to be incorporated. Such apparatus should therefore be exempted from the conformity assessment procedures normally applicable to apparatus. However, such apparatus should not be permitted to compromise the conformity of the fixed installation into which it is incorporated.	(20) It is not pertinent to carry out the conformity assessment of apparatus placed on the market for incorporation into a given fixed installation, and otherwise not commercially available, in isolation from the fixed installation into which it is to be incorporated. Such apparatus should therefore be exempted from the conformity assessment procedures normally applicable to apparatus. However, such apparatus should not be permitted to compromise the conformity of the fixed installation into which it is incorporated. ***Should an apparatus be incorporated into more than one identical fixed installations, identifying the EMC characteristics of these installations should be sufficient to ensure exemption from the conformity assessment procedure.***

Amendment 5
Article 1, paragraph 1

1. This Directive regulates the electromagnetic compatibility of equipment. It aims to ensure the functioning of the internal market by requiring equipment to comply with an adequate level of electromagnetic compatibility.	1. This Directive regulates the electromagnetic compatibility of equipment. It aims to ensure the functioning of the internal market by requiring equipment to comply with an adequate level of electromagnetic compatibility. ***This Directive applies to equipment, as defined in Article 2.***

Amendment 6
Article 1, paragraph 2, point (b)

(b) aircraft and equipment intended to be fitted into aircraft;	(b) ***aeronautical products, parts and appliances as referred to in Regulation (EC) No. 1592/2002***;

Amendment 7
Article 1, paragraph 2, point (c)

(c) radio equipment ***which is not commercially available, including kits of***	(c) radio equipment ***used*** by radio amateurs within the meaning defined in the Radio

components to be assembled by radio amateurs***,*** within the meaning defined in the Radio Regulations adopted in the framework of the Constitution and Convention of the International Telecommunication Union, ***as well as*** commercial equipment modified by and for the use of ***such*** radio amateurs.	Regulations adopted in the framework of the Constitution and Convention of the International Telecommunication Union, ***unless the equipment is available commercially. Kits of components to be assembled by radio amateurs and*** commercial equipment modified by and for the use of radio amateurs ***are not regarded as commercially available equipment***.

Amendment 8
Article 1, paragraph 3, point (a)

(a) it is incapable of generating electromagnetic emissions which exceed a level allowing radio and telecommunication equipment and other equipment to operate as intended; and	(a) it is incapable of generating ***or contributing to*** electromagnetic emissions which exceed a level allowing radio and telecommunication equipment and other equipment to operate as intended; and

Amendment 9
Article 1, paragraph 4

4. ***This Directive shall not apply to equipment or requirements in so far as the requirements*** laid down ***in*** this Directive ***are harmonised by more specific Community legislation***.	4. ***Where, for an equipment referred to in paragraph 1, the requirements referred to in Annex I are wholly or partly*** laid down ***more specifically by other Community Directives,*** this Directive ***shall not apply, or cease to apply, to that equipment in respect of such requirements from the date of implementation of those Directives***.

Amendment 10
Article 2, paragraph 1, point (e)

(e) "Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of equipment;	(e) "Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of equipment. ***An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself***;

Justification

The International Electrotechnic Committee (IEC) has defined the concept of "electromagnetic disturbance" (IEC50, International Electrotechnic Vocabulary (IEV), Chapter 161: Electromagnetic compatibility, 2.1.6).

This definition has been included in the current Council Directive 89/336/EEC of May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility. See 89/336/EEC Article 1, 2). This definition shall be maintained in the new Directive to guarantee the correct interpretation of the concept.

Amendment 11
Article 2, paragraph 1, point (f a) (new)

(fa) "Safety purposes" means the purposes of safeguarding human life or property;

Amendment 12
Article 2, paragraph 1, point g)

(g) "Harmonised standard" means a technical specification adopted by a recognised standards body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC for the purpose of establishing a European requirement, compliance with which is not compulsory.	***deleted***

Amendment 13
Article 2, paragraph 1, point (g a) (new)

(ga) "Electromagnetic environment" means the whole of all electromagnetic phenomena observable in a given location.

Justification

The International Electrotechnic Committee (IEC) has defined the concept of "electromagnetic environment" (IEC50, International Electrotechnic Vocabulary (IEV), Chapter 161: Electromagnetic compatibility, 2.1.5). This definition, which distinguishes the concept of "electromagnetic environment" from the concept of "place, location", is important for the correct interpretation of the electromagnetic compatibilty concept itself.

Amendment 14
Article 2, paragraph 2, point (b)

(b) "ready-made connecting devices" intended for connection to an apparatus by an end user for the transmission of signals, which are placed on the market separately from such apparatus, and which are liable to generate or transmit electromagnetic disturbance when connected to it.	***deleted***

Amendment 15
Article 2, paragraph 2, point (a a) (new)

	aa) "mobile installations" defined as a combination of apparatus and, where applicable, other devices, intended to be moved and operated in a range of locations.

Amendment 16
Article 4, Title

Free ***circulation*** of equipment	Free ***movement*** of equipment

Amendment 17
Article 4, paragraph 2

2. The requirements of this Directive shall not prevent the application in any Member State of special measures**,** concerning the putting into service or use of equipment***, which have been taken in respect of a specific site*** in order to overcome an existing or predicted electromagnetic compatibility problem***, or*** for safety ***purposes*** to protect the public telecommunications networks or receiving or transmitting stations used. Member States shall notify those measures ***in accordance with the procedure laid down in*** Directive 98/34/EC.	2. The requirements of this Directive shall not prevent the application in any Member State of ***the following*** special measures concerning the putting into service or use of equipment ***(a) measures*** in order to overcome an existing or predicted electromagnetic compatibility problem ***at a specific site*** ***(b) measures taken*** for safety ***reasons*** to protect the public telecommunications networks or receiving or transmitting stations ***when*** used ***for safety purposes in well-defined spectrum situations***. ***Without prejudice to*** Directive 98/34/EC**,**

as amended by Directive 98/48/EC, Member States shall notify these measures ***to the Commission and to the other Member States.***

Those special measures which have been accepted will be published by the Commission in the Official Journal of the European Union.

Amendment 18
Article 4, paragraph 3

3. Member States shall not create any obstacles to the display at trade fairs, exhibitions, demonstrations or similar events of equipment which does not comply with this Directive provided that a visible sign clearly indicates that such equipment may not be placed on the market ***or*** put into service until it has been brought into conformity with this Directive.

3. Member States shall not create any obstacles to the display ***and/or*** demonstration at trade fairs, exhibitions or similar events of equipment which does not comply with this Directive***,*** provided that a visible sign clearly indicates that such equipment may not be placed on the market ***and/or*** put into service until it has been brought into conformity with this Directive. ***Demonstration may only take place provided that adequate measures are taken to avoid electromagnetic disturbances.***

Amendment 19
Article 6, paragraph 1

1. ***The compliance of equipment with the relevant harmonised standards whose references have been published in the Official Journal of the European Communities shall raise a presumption, on the part of the Member States, of conformity with the essential requirements referred to in Annex I to which such standards relate***.

1.***"Harmonised standard" means a technical specification adopted by a recognised European standardisation body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC for the purpose of establishing a European requirement. Compliance with a "harmonised standard" is not compulsory***.

Amendment 20
Article 6, paragraph 2

2. ***The modalities for the application of***

2. ***The compliance of equipment with the***

harmonised standards are set out in Annex V.	***relevant harmonised standards whose references have been published in the Official Journal of the European Union shall raise a presumption, on the part of the Member States, of conformity with the essential requirements referred to in Annex I to which such standards relate. This presumption of conformity is limited to the scope of the harmonised standard(s) applied and the relevant essential requirements covered by such harmonised standard(s).***

Amendment 21
Article 6, paragraph 4, point (c)

(c) to maintain the reference in the publication referred to in paragraph ***1***;	(c) to maintain the reference in the publication referred to in paragraph ***2***;

Amendment 22
Article 6, paragraph 4, point (d)

(d) to withdraw the reference from the publication referred to in paragraph ***1***.	(d) to withdraw the reference from the publication referred to in paragraph ***2***.

Amendment 23
Article 8 a (new)

Article 8 a

Other marks and information

1. Each apparatus shall be identified in terms of type, batch, serial number or any other information allowing for the identification of the apparatus;

2. Each apparatus shall be accompanied by the name and address of the manufacturer and, if he is not established within the Community, the name and address of his authorised representative or of the person established within the Community responsible for placing the apparatus on the Community market;

3. The manufacturer shall provide information on any specific precautions that have to be taken when the apparatus is assembled, installed, maintained or used, in order to ensure that, when put into service, the apparatus is in conformity with the protection requirements set out in Annex I(1);

4. Apparatus for which compliance with the protection requirements is not ensured in residential areas shall be accompanied by a clear indication of this restriction of use, where appropriate also on the packaging.

5. The information required to enable use in accordance with the intended purpose of the apparatus must be contained in the instructions accompanying the apparatus.

Amendment 24
Article 9, paragraph 4

4. Where the measure referred to in paragraph 1 is attributed to a shortcoming in harmonised standards, the Commission, after consulting the parties, shall, if the Member State concerned intends to uphold the measure, bring the matter before the Committee and initiate the procedure laid down in ***Article*** 6(3).	4. Where the measure referred to in paragraph 1 is attributed to a shortcoming in harmonised standards, the Commission, after consulting the parties, shall, if the Member State concerned intends to uphold the measure, bring the matter before the Committee and initiate the procedure laid down in ***Articles*** 6(3) ***and 6(4)***.

Amendment 25
Article 9, paragraph 5

5. Where the non-compliant apparatus ***is accompanied by the report*** referred to in ***Article 7(2)***, the Member State concerned shall take appropriate action in respect of the author of ***that report***, and shall inform the Commission and the other Member States accordingly.	5. Where the non-compliant apparatus ***has been subject to the conformity assessment procedure*** referred to in ***Annex I ter***, the Member State concerned shall take appropriate action in respect of the author of ***the statement referred to in Annex I ter (3)***, and shall inform the Commission and the other Member States accordingly.

Amendment 26
Article 11, paragraph 1 and 2

1. Member States shall ***designate*** the bodies ***competent to draw up the reports referred to in Article 7(2) and shall notify them (notified bodies) to the Commission and to the other Member States***.	1. Member States shall ***notify*** the ***Commission of the*** bodies ***which they have designated to carry out the tasks referred to in the Annex I ter.*** Member States shall apply the criteria ***laid down*** in ***the*** Annex IV ***in determining the*** bodies ***to be designated***.
Such notification shall state whether the bodies are ***competent*** for all apparatus covered by this Directive ***or whether their responsibility*** is limited to certain specific aspects.	Such notification shall state whether the bodies are ***designated to carry out the tasks referred to in the previous paragraph*** for all apparatus covered by this Directive ***and/or the essential requirements referred to in the Annex I or whether their scope of designation*** is limited to certain specific aspects ***and/or category of apparatus***.
2. Member States shall apply the criteria ***listed*** in Annex IV ***for the assessment of notified*** bodies.	

Amendment 27
Article 11, paragraph 3

3. Bodies which comply with the assessment criteria fixed by the relevant harmonised standards shall be presumed to comply with the criteria set out in Annex IV covered by such harmonised standards. The Commission shall publish in the Official Journal of the European ***Communities*** the references of these standards.	***2***. Bodies which comply with the assessment criteria fixed by the relevant harmonised standards shall be presumed to comply with the criteria set out in Annex IV covered by such harmonised standards. The Commission shall publish in the Official Journal of the European ***Union*** the references of these standards.

Justification

Paragraph 3 of Article 11 in the Commission text has become paragraph 2 of Article 11 in the Parliament's amendment.

Amendment 28
Article 11, paragraph 4

4. The Commission shall publish in the	***3***. The Commission shall publish in the

Official Journal of the European ***Communities*** a list of notified bodies. The Commission shall ensure that the list is kept up to date.	Official Journal of the European ***Union*** a list of notified bodies. The Commission shall ensure that the list is kept up to date.

Justification

Paragraph 4 of Article 11 in the Commission text has become paragraph 3 of Article 11 in the Parliament's amendment.

Amendment 29
Article 11, paragraph 5

5. If a Member State finds that a notified body no longer meets the criteria listed in Annex IV, it shall inform the Commission and the other Member States accordingly. The Commission shall withdraw the reference to that body from the list referred to in paragraph ***4***.	***4***. If a Member State finds that a notified body no longer meets the criteria listed in Annex IV, it shall inform the Commission and the other Member States accordingly. The Commission shall withdraw the reference to that body from the list referred to in paragraph ***3***.

Justification

Paragraph 5 of Article 11 in the Commission text has become paragraph 4 of Article 11 in the Parliament's amendment.

Amendment 30
Article 12, paragraph 1

1. Apparatus which has been placed on the market and which may be incorporated into a fixed installation is subject to all relevant provisions for apparatus set out in this Directive.	1. Apparatus which has been placed on the market and which may be incorporated into a fixed installation is subject to all relevant provisions for apparatus set out in this Directive.
However, the provisions of Articles 5, 7 and 8 shall not be compulsory in the case of apparatus which is ***specifically designed*** for incorporation into a given fixed installation and is otherwise not commercially available. In such cases, the accompanying documentation shall ***name the site of*** the fixed installation and	However, the provisions of Articles 5, 7***,*** 8 and ***8a*** shall not be compulsory in the case of apparatus which is ***intended*** for incorporation into a given fixed installation and is otherwise not commercially available. In such cases, the accompanying documentation shall ***identify*** the fixed installation and ***its EMC characteristics***

indicate the precautions to be taken for the incorporation of the apparatus into the fixed installation in order not to compromise the conformity of the specified installation. It shall furthermore include the information referred to in ***Point 4(a)*** and ***(b) of Annex I***.	***and*** indicate the precautions to be taken for the incorporation of the apparatus into the fixed installation in order not to compromise the conformity of the specified installation. It shall furthermore include the information referred to in ***Articles 8a (1)*** and ***8a (2)***.

Amendment31
Article 16

This Directive shall enter into force on the twentieth day after its publication in the Official Journal of the European ***Communities***.	This Directive shall enter into force on the twentieth day after its publication in the Official Journal of the European ***Union***.

Amendment 32
Annex I, paragraph 3.6

3. SPECIFIC REQUIREMENTS FOR FIXED INSTALLATIONS	***1a.*** SPECIFIC REQUIREMENTS FOR FIXED INSTALLATIONS
6. Installation and intended use of components:	Installation and intended use of components:
A fixed installation shall be installed applying good engineering ***practice*** and respecting the information on the intended use of its components, with a view to meeting the protection requirements set out in Point 1.	A fixed installation shall be installed applying good engineering ***practices*** and respecting the information on the intended use of its components, with a view to meeting the protection requirements set out in Point 1. ***These good engineering practices shall be documented and the documentation shall be held by the responsible person(s) at the disposal of the relevant national authorities for inspection purposes as long as the fixed installation is in operation.***

Justification

Paragraph 3.6 of Annex I in the Commission text has become paragraph 1a (new) of Annex I in Parliament's amendment.

Amendment 33

2. SPECIFIC REQUIREMENTS FOR APPARATUS	***deleted***
2. Electromagnetic compatibility assessment:	
The manufacturer shall perform an electromagnetic compatibility assessment of the apparatus, based on the relevant phenomena, with a view to meeting the protection requirements set out in Point 1.	
The electromagnetic compatibility assessment shall take into account all normal intended operating conditions.	
In cases where the apparatus can take different configurations, the electromagnetic compatibility assessment shall confirm that the apparatus meets the protection requirements set out in Point 1 in all possible configurations identified by the manufacturer as representative of normal use in its intended application.	
3. External devices:	
All apparatus shall meet the protection requirements referred to in Point 1 without external devices such as filtering or shielding, unless those devices, including the necessary instructions for use, are placed on the market together with the apparatus as a functional unit.	
This provision shall not apply to apparatus designed and intended for installation by a person technically competent in the field of electromagnetic compatibility. In such cases external devices need not be placed on the market together with the apparatus, provided that those devices are commercially available and their required electromagnetic compatibility characteristics are sufficiently described in the instructions for use of the apparatus;	
Connecting devices, such as plugs or cables, which have to fulfil specific requirements for the compliance of the	

apparatus with the protection requirements set out in Point 1, need not to be placed on the market together with the apparatus if they are commercially available and their required properties are sufficiently described in the instructions for use of the apparatus.

4. Information requirements:

(a) Each apparatus shall be identified in terms of type, batch, serial number or any other information allowing for the identification of the apparatus;

(b) Each apparatus shall be accompanied by the name and address of the manufacturer and, if he is not established within the Community, the name and address of his authorised representative or the person established within the Community responsible for placing the apparatus on the Community market;

(c) The manufacturer shall provide information on any specific precautions that have to be taken when the apparatus is assembled, installed, maintained or used, in order to ensure that, when put into service, the apparatus is in conformity with the protection requirements set out in Point 1;

(d) Apparatus for which compliance with the protection requirements is not ensured in residential areas shall be accompanied by a clear indication of this restriction of use.

5. Ready-made connecting devices:

(a) The requirements for apparatus set out in Points 2, 3, 4(c) and (d) shall not apply to ready-made connecting devices;

(b) Ready-made connecting devices shall be designed and manufactured in such a way that, when connected to the apparatus for which they are intended, following any specific precautions as described below, compliance with the protection requirements set out in Point 1 is ensured;

(c) Ready-made connecting devices shall be accompanied by an indication of the technical characteristics of the apparatus to which they are intended to be connected, and information on any specific precautions that need to be taken regarding the connection to such apparatus with a view to meeting the protection requirements set out in Point 1.

Amendment 34
Annex I bis (new)

Conformity Assessment procedure referred to in Article 7 (internal production control)

1. The manufacturer shall perform an electromagnetic compatibility assessment of the apparatus, based on the relevant phenomena, with a view to meeting the protection requirements set out in ***Annex I, point 1. The correct application of all the relevant harmonised standards whose references have been published in the Official Journal of the European Union shall be equivalent to the carrying out of the electromagnetic compatibility assessment.***

2. The electromagnetic compatibility assessment shall take into account all normal intended operating conditions. In cases where the apparatus can take different configurations, the electromagnetic compatibility assessment shall confirm that the apparatus meets the protection requirements set out in ***Annex I,*** Point 1 in all possible configurations identified by the manufacturer as representative of its intended ***use***.

3. The manufacturer shall draw up technical documentation set out in Annex II which provides evidence of the conformity of the apparatus with the essential requirements of this Directive.

4. The manufacturer or his authorised representative in the Community shall

representative in the Community shall hold the technical documentation at the disposal of the competent authorities for a period of at least ten years after the date on which such apparatus was last manufactured.

5. The compliance of apparatus with all relevant essential requirements shall be attested by an EC declaration of conformity issued by the manufacturer or his authorised representative established within the Community.

6. The manufacturer or his authorised representative in the Community shall hold the EC declaration of conformity at the disposal of the competent authorities for a period of at least ten years after the date on which such apparatus was last manufactured.

7. If neither the manufacturer nor his authorised representative is established within the Community, the obligation to hold the EC declaration of conformity and the technical documentation at the disposal of the competent authorities shall be the responsibility of the person who places the apparatus on the Community market.

8. The manufacturer must take all measures necessary in order that the manufacturing process ensures compliance of the manufactured products with the technical documentation referred to in point 3 and with the provisions of the directive that apply to them.

9. The technical documentation and the EC declaration of conformity shall be drawn up in accordance with the provisions set out in Annex II.

Justification

Paragraph 2.2 of Annex I in the Commission text have become paragraphs 1 and 2 of Annex I bis in Parliament's amendment.

Amendment 35
Annex I ter (new)

<u>Conformity Assessment procedure referred to in Article 7</u>

1. This procedure consists of applying the Annex I bis, completed as follows:

2. The manufacturer or his authorised representative established within the Community shall present the technical documentation to the notified body referred to in article 11 and request the notified body for an assessment. The manufacturer or his authorised representative established within the Community shall specify to the notified body which aspects of the essential requirements have to be assessed by the notified body.

3. The notified body shall review the technical documentation and assess whether the technical documentation properly demonstrates that the requirements of the Directive he shall assess have been met. If the compliance of the apparatus is confirmed, the notified body shall issue a statement to the manufacturer or his authorised representative established within the Community confirming the compliance of the apparatus. The statement of the notified body is limited to those aspects of the essential requirements which have been assessed by the notified body.

4. The manufacturer shall add the statement of the notified body to the technical documentation.

Amendment 36
Annex II

1. TECHNICAL DOCUMENTATION

The technical documentation must enable the conformity of the apparatus with the essential requirements to be assessed. It

1. TECHNICAL DOCUMENTATION

The technical documentation must enable the conformity of the apparatus with the essential requirements to be assessed. It

must cover the design and manufacture of the apparatus, in particular:

– a general description of the apparatus;

– ***a report*** of compliance with the harmonised standards, if any, applied in full or in part;

– where the manufacturer has not applied harmonised standards, or has applied them only in part, a description and explanation of the steps taken to meet the essential requirements of the Directive, including a description of the electromagnetic compatibility assessment set out in Annex I, results of design calculations made, examinations carried out, test reports, etc.;

– ***on a voluntary basis, the manufacturer may include in the technical documentation a report*** from ***a*** notified body ***confirming the conformity of the apparatus with the relevant essential requirements set out in*** Annex ***I.***

2. EC DECLARATION OF CONFORMITY

The EC declaration of conformity must contain, at least, the following:

– reference to this Directive;

– identification of the apparatus to which it refers, as set out in ***Point 4(a) of Annex I***;

– name and address of the manufacturer and, where applicable, the name and address of his authorised representative within the Community;

– dated reference to the specifications under which conformity is declared to ensure the conformity of the apparatus with the provisions of this Directive;

– date ***and place of issue*** of the declaration;

– identification and signature of the person empowered to bind the manufacturer or his authorised representative.

must cover the design and manufacture of the apparatus, in particular:

– a general description of the apparatus;

– ***evidence*** of compliance with the harmonised standards, if any, applied in full or in part;

– where the manufacturer has not applied harmonised standards, or has applied them only in part, a description and explanation of the steps taken to meet the essential requirements of the Directive, including a description of the electromagnetic compatibility assessment set out in Annex I, results of design calculations made, examinations carried out, test reports, etc..

– ***statement*** from ***the*** notified body***, where procedure referred to in*** Annex ***I ter has been followed***.

2. EC DECLARATION OF CONFORMITY

The EC declaration of conformity must contain, at least, the following:

– reference to this Directive;

– identification of the apparatus to which it refers, as set out in ***article 8a(1)***;

– name and address of the manufacturer and, where applicable, the name and address of his authorised representative within the Community;

– dated reference to the specifications under which conformity is declared to ensure the conformity of the apparatus with the provisions of this Directive;

– date of the declaration;

– identification and signature of the person empowered to bind the manufacturer or his authorised representative.

Amendment 37
Annex III, paragraph 5

However, where one or more of those Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking shall indicate conformity only with the Directives applied by the manufacturer. In this case, particulars of the Directives applied, as published in the Official Journal of the European ***Community***, must be given in the documents, notices or instructions required by the Directives and accompanying such apparatus.	However, where one or more of those Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking shall indicate conformity only with the Directives applied by the manufacturer. In this case, particulars of the Directives applied, as published in the Official Journal of the European ***Union***, must be given in the documents, notices or instructions required by the Directives and accompanying such apparatus.

Amendment 38
Annex V

1. The correct application of all the relevant harmonised standards whose references have been published in the Official Journal of the European Communities shall be equivalent to the carrying out of the electromagnetic compatibility assessment referred to in Point 2 of Annex I.	***deleted***
2. Compliance with a harmonised standard means conformity with its provisions (e.g. limits) and demonstration thereof by the methods the harmonised standard describes or refers to.	
3. Presumption of conformity via application of harmonised standard(s) is limited to the scope of the harmonised standard(s) applied and the relevant essential requirements covered by such harmonised standard(s).	
4. Harmonised standards are to be selected and used in accordance with the provisions of the relevant standardisation documents. The reference to those documents shall be published in the Official Journal of the European	

Communities.

Justification

Annex V in the Commission text has been deleted.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

17.03.2004

European Parliament adopts the Report on the New EMC Directive

1. EMC Report adopted

The EUROCOM Newsletter of 04.03.2004 reported on the adoption, by the Parliamentary Committee on Industry, External Trade, Research and Energy, of the amendments to the Report on the proposal for a European Parliament and Council directive on the approximation of the laws of the Member States relating to electromagnetic compatibility (COM(2002) 759 – C5-0634/2002 – 2002/0306(COD)).

The final Report of rapporteur Luis Berenguer Fuster has been adopted by the plenum of the European Parliament on March 9, 2004.

The amendments we reviewed in the previous Newsletter have been accepted.

The final text is available, in several languages, at:

http://www.europarl.eu.int/home/default_en.htm

You can select the language you want.

Click on “Activities – Plenary Sessions”, then select “Latest Reports”.

There are several pages. In the English version, you will find the Berenguer Fuster Report on the EMC Directive on page 3. You can download it in htm, doc or pdf format.

1. Next step

The European Commission now will have to finalize the text of the new Directive, taking into account the amendments introduced by the Parliament.

Possibly a conciliation procedure will be initiated.

We will continue to follow up further development of this important Directive.

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Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM SWG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

28.04.2004

Welcome to the IARU Region 1 EUROCOM SWG !!

1. Ten countries join the European Union

The first of May 2004 ten more countries become European Member States : Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Malta, Hungary, Poland, Slovakia, Slovania.

These countries join the fifteen existing Member States : Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

The 25 Member States will totalize 454 million people.

More than ever before, the decisions taken by the Council, the Commission and the Parliament will influence and harmonize the lives of so many European citizens.

2. EUROCOM : amateur radio's interface to the European institutions

In the 1980's it became obvious that European law was going to influence more and more the amateur radio service. A European law was being prepared, stating that no radioelectrical appliance should be put on the market without a certification of electromagnetic compatibility. The fear was great that this law would hamper home building by radioamateurs. Steps were undertaken to exempt home made amateur radio equipment from the scope of the law and these efforts were successful. Indeed, the EMC Directive of 1986 provides that exception.

The proof was made that the defense of the amateur radio service should also be organised at the level of the European Community. At the triennial IARU Region 1 Conference 1990 in Torremolinos a specialised working group was created : EUROCOM.

This was not an easy decision. To justify that a working group would operate comprising delegates of a limited number of Region 1 member societies, it was decided that, within Region 1, subregions could be defined if needed. The Member States of the European Communities were considered as a sub-region of Region 1 and EUROCOM was defined as a sub-regional working group.

3. Terms of Reference for EUROCOM, the IARU Region 1 sub-regional European Community Working Group

1. The EUROCOM sub-regional Working Group (SWG) is a specialised body of the IARU Region 1. It acts under the provisions of the IARU Region 1 Constitution and Bye-Laws.

2. The EUROCOM SWG will maintain contact with the European Commission, the Economic and Social Committee of the EEC and the European Parliament with the aim of

a. Identifying the areas of concern in European legislation regarding Amateur Radio;

b. Circulating information on these areas of concern to the members of the SWG as well as to the Secretary of IARU Region 1;

c. Communicating those items of information which are considered to be of importance to Amateur Radio and which are not being acted upon within IARU Region 1 member societies via the SWG convenor to the European Community for their consideration.

3. The Eurocom SWG will advise the General Conferences of IARU Region 1 and in between Conferences the Executive Committee of IARU Region 1 on

a. Optimum policies for dealing with current and future European Community legislation;

b. Opportunities for acquiring support from the European Community for the development of Amateur Radio.

4. The work of the EUROCOM SWG shall be carried out mainly by correspondence. If it is deemed necessary by the Chairman of the SWG a meeting may be convened after approval of and in consultation with the Executive Committee of IARU Region 1.

5. The Chairman of the EUROCOM SWG shall be appointed at each triennial General Conference and shall act according to the procedures described in the IARU Region 1 Bye-Laws. He shall attend the IARU Region 1 General Conferences and shall report annually to the IARU Region 1 Executive Committee and to a General Conference. His expenses will be re-imbursed according to articles B.3.25 and B.3.28 of the IARU Region 1 Bye-Laws.

4. EUROCOM Delegates

Each IARU Region 1 member society within the European Union has an official delegate to the EUROCOM SWG.

We kindly ask the member societies of the new European Union Member States to communicate to the EUROCOM chairman the name, address, telephone and e-mail address of their delegate.

These member societies are:

Cyprus	CARS	CYPRUS AMATEUR RADIO SOCIETY
Czech Rep.	CRC	CZECH RADIO CLUB
Estonia	ERAU	ESTONIAN RADIOAMATEURS UNION
Latvia	LRAL	LATVIJAS RADIOAMATIERU LIGA
Lithuania	LRMD	LIETUVOS RADIJO MEGEJU DRAUGIJA
Malta	MARL	MALTA AMATEUR RADIO LEAGUE
Hungary	MRASZ	MAGYAR RADIOAMATOR SZOVETSEG
Poland	PZK	POLSKI ZWIAZEK KROTKOFALOWCOW
Slovakia	SARA	SLOVAK AMATEUR RADIO ASSOCIATION
Slovania	ZRS	ZVEZA RADIOAMATERJEV SLOVENIJE

5. EUROCOM Newsletters

Whenever a significant event occurs at the level of the European Union with a possible impact on the amateur radio service, the EUROCOM SWG chairman circulates a Newsletter to the Executive Committee, to the delegates and to other interested parties.

The EUROCOM Newsletters are kept in archive by DARC since several years. See : http://www.darc.de/referate/ausland/iaru/eurocom/

6. Annual EUROCOM meeting in Friedrichshafen

The EUROCOM SWG chairman invites the EUROCOM delegates and other interested parties visiting Ham Radio in Friedrichshafen to participate to a EUROCOM meeting.

This meeting is set up yearly, courtesy of DARC.

We will circulate the agenda and details about the 2004 venue in due time.

73

Gaston Bertels, ON4WF
EUROCOM SWG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

24.05.2004

EUROCOM meeting - Ham Radio 2004

1. Convening

The IARU Region 1 EUROCOM working group sets up a meeting in Friedrichshafen, Germany during the 2004 Ham Radio convention.

DARC offered to host this meeting which is convened in the Administrative Building (Verwaltungsgebäude) of the Messe Friedrichshafen on **Friday June 25th 2004 at 14:00**.

The meeting room is located in the Press Center (see annex) on the 5th floor.

Interested parties are invited to this meeting where the main topic to be discussed will be PLT.

2. Agenda

A provisional agenda has been drafted:

1. Opening and welcome
2. To nominate a secretary to the meeting (minutes)
3. EUROCOM activity review (action points) since the meeting at Ham Radio 2003
4. EMC Directive – latest position
5. PLT – the political issues
6. Contributions from the floor
7. Action points
8. To close the meeting

3. On the importance to participate

The meeting provides the opportunity to discuss what can be done in the political arena in Brussels on the subject of PLT, which continues to threaten HF services. Weak signal users, such as radio astronomy and amateur radio, are among the most exposed.

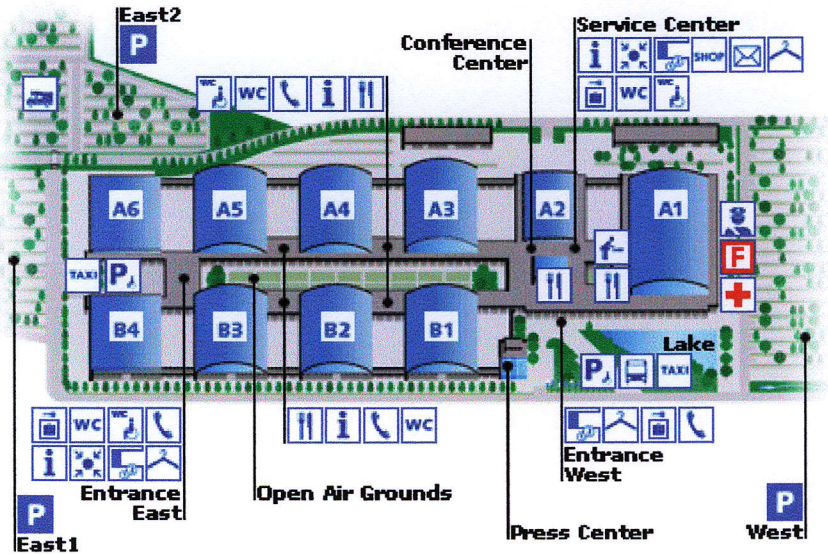
We hope to see you.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex : 1

Hall overview



Foyer West / Conference Center

55th DARC Lake of Constance meeting
HAM-Night on Saturday, June 26

Hall A1

Radios, measuring instruments, aerials, attachments, electronic engineering electronics, hard and software, accessories Clubs, associations

Hall A6

youth camp

Hall B1

Flea-market

Hall B2

Flea-market

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

19.06.2004

EUROCOM SRWG 2003 ACTIVITY REPORT

1. Powerline Communications

The struggle for the protection of the radio spectrum against untolerable interference levels generated by Powerline Telecommunication techniques has gone on since several years.

The EUROCOM chairman's Report to the IARU Region 1 Executive Committee for the year 2002 presented a general review of this issue.

January 2003, the European Commission convened a "Stakeholders" meeting on PLC. It was decided to widen the scope of Mandate 313 from the EU Commission charging CENELEC/ETSI with developing standards for digital telecommunications over wired networks.

March 2003, a delegation of EMC managers of several IARU Region 1 societies, convened by the EUROCOM chairman, met Mark Bogers and Thierry Brefort, the main EU officials in charge of PLC. Several technical presentations were used to try and convince the EU representatives of the need to protect the spectrum users from the high interference levels generated by PLC. From the discussion it became clear that, although the technical arguments were accepted, the decision would be a polical one.

April 2003, a meeting was convened by the World Broadcast of Radio Nederland in Hilversum. Mark Bogers, EC Directorate Industry, accepted to meet a group of HF users to discuss the PLC issue. The meeting was reported in the EUROCOM Newsletter of 30.04.2003. It became clear that the EU would promote large scale PLC trials.

At Ham Radio, Friedrichshafen 2003, the EMC and EUROCOM working groups set up a joint meeting. Moreover, a PLC Information Stand provided information on the PLC issue to the visitors of Ham Radio.

In 2003, at European Union level, the main action has been led by the IARU delegates to ETSI, more precisely by their participation to the meetings of the CENELEC/ETSI Joint Working Group. This work has been monitored by the EMC working group.

July 2003, the EUROCOM WG chairman received a letter from the EU Commission calling for comments on the PLC issue. The comments would be summarised and submitted to a restricted PLC Workshop. Hilary Claytonsmith, G4JKS accepted to prepare a contribution on behalf of IARU Region 1. The EU PLC Workshop was convened October 2003 and restricted to Member States representatives. Mandate 313 was extended to allow more time to the JWG.

February 2004, as the result of another EU Workshop on PLC, the EU Commission decided to prepare a Commission Recommendation, based on a Technical Specification for electromagnetic emissions from access powerline communications networks. This Technical Recommendation has been prepared by the CENELEC/ETSI JWG and submitted to the Member States. A voting on three options of permitted interference levels is awaited May 15th, 2004.

On behalf of the IARU Region 1 EMC WG, Hilary Claytonsmith G4JKS circulated a letter to the member societies within the EU calling for action at the level of the national representatives in the EU Communications Committee (COCOM), urging them to vote for option 3, i.e. the NB30 norm, the least intrusive of the proposed options.

2. New EMC Directive

At Ham Radio 2003, Christian Verholt, OZ8CY EMC WG chairman, asked ON4WF to undertake action in the field of the draft new EMC Directive. This draft Directive would open the possibility for manufacturers to put on the market products certified to be conform to the EMC requirements, without control by a certified body.

OZ8CY suggested to try and postpone the voting on the new EMC Directive till other issues were clarified. The Commission did not want to procrastinate and submitted the draft EMC Directive to the EU Parliament. The Parliamentary Committee for Industry (ITRE) was asked to report to the Parliament.

ITRE chairman Berenguer Fuster decided on a shortened procedure, without public debate. The only way to try and review the text was to prepare amendments and suggest Members of the Parliament to submit them to ITRE.

September 2003, the local DARC club convened a meeting in Werl, near Dortmund, Germany with Members of the EU Parliament. Nearly 200 DARC members assisted. EUROCOM chairman ON4WF presented a few amendments he had drafted to the new EMC Directive. The MEP were supportive.

November 2003, a DARC delegation comprising Ulfried Ueberschar, DJ6AN and Peter Roselieb, DL9KBM, accompanied by ON4WF, visited MEP Norbert Glante in the EU Parliament, Brussels and presented the PLC issue.

Meanwhile 9 amendments have been suggested by EUROCOM and submitted by several MEP's to ITRE. Three of these amendments have been accepted by ITRE. Moreover, a recommendation to the Member States has been included in the recital of the Directive, stating that the amateur radio service shall be protected against electromagnetic disturbance.

March 2004, the EU Parliament has adopted the amended text of the EMC Directive. The EU Commission will further proceed to finalise the text.

3. Newsletters

In 2003, 11 EUROCOM Newsletters were circulated, most of them reviewing the PLC and EMC Directive developments.

4. Thanks

We wish to extend special thanks to :

- MEP Fernando Fernández Martín, EA8AK
- MEP Dr Peter Liese
- MEP Helmut Kuhne

who kindly accepted to submit to ITRE the amendments to the EMC Directive.

Many thanks also to the EMC managers and collaborators of RSGB, DARC and VERON who helped drafting these amendments.

Thanks also to DARC for kindly hosting the EUROCOM WG meeting at Ham Radio.

Respectfully submitted

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

08.07.2004

EUROCOM meeting at HAM RADIO June 25 2004

REPORT

1. Opening and Welcome

Chairman Gaston Bertels, ON4WF opened the meeting and welcomed the participants. He presented the list of the 25 European Union's Member States and 4 Candidate Member States.

2. To nominate a secretary to the meeting

Mike Zwingl, OE3MZC was nominated as secretary to the meeting. Thanks to Mike for taking the minutes.

3. EUROCOM Activity Report

The Action Points decided at EUROCOM meeting 2003 were reviewed.

- Joachim Groeger, DK3NG drafted a petition to the EU Parliament on "PLC Considerations". The opportunity to circulate this paper to the MEP was reviewed several times by DK3NG and the EUROCOM chairman. The EU Parliament, which is now 750 MEP strong, is supporting measures to alleviate the "digital divide" and to promote the "Information Society". A petition by the Amateur Radio representatives to stop PLC should be presented by at least a group of MEP to gain attention of the Parliament. Therefore the IARU societies should try and convince some of their MEP to support such a petition.
- During the last 12 months, OE3MZC circulated several papers on testing and on how to report interference from PLC.
- OE3MZC is working on a PLC presskit sample for societies to use.
- July 2003, Christian Verholt, OZ8CY asked EUROCOM chairman to explore a possible action to postpone the new EMC Directive till other issues were clarified. The Commission did not want to procrastinate and submitted the draft EMC Directive to the EU Parliament. The proposal was to be examined by the ITRE Parliamentary Committee.
- OZ8CY is working at CISPR I on a revision of the interference limits.
- The quest for competent EMC specialists in the national societies is going on. Their input to national standardization committees would be very useful. PZK mentioned their President and Diethard Hansen, HB9CVQ will collect a list of IEEE EMC specialists who are also hams.

4. EMC Directive

When the proposal for a new EMC Directive was received by ITRE Parliamentary Committee, chairman Berenguer Fuster decided on a shortened procedure, without public debate. The only way to try and modify the text was to prepare amendments and suggest Members of the EU

Parliament to submit them to ITRE. ON4WF drafted an amendment and MEP Fernando Fernandez-Martin (EA8AK) submitted it immediately to ITRE.

September 2003, the local DARC club convened a meeting in Werl, near Dortmund, Germany with Members of the EU Parliament. Nearly 200 DARC members assisted. EUROCOM chairman ON4WF presented a few amendments he had drafted to the new EMC Directive. The MdEP were supportive.

November 2003, a DARC delegation comprising Ulfried Ueberschar, DJ6AN and Peter Roselieb, DL9KBM, accompanied by ON4WF, visited MdEP Norbert Glante in the EU Parliament, Brussels and presented the PLC issue.

Subsequently, 9 amendments have been suggested by EUROCOM and submitted by several MEP's to ITRE. Three of these amendments have been accepted by ITRE. Moreover, a recommendation to the Member States has been included in the recital of the Directive, stating that the amateur radio service shall be protected against electromagnetic disturbance.

When the EU Commission published the initial draft of the new EMC Directive, the exclusion of amateur radio homemade equipment from the scope of the Directive, which existed in the 1989/336/EEC Directive, had been omitted. EUROCOM chairman asked the Commission to maintain the exclusion and to extend it to kits to be assembled by licensed radioamateurs. This proposal has been accepted.

The new EMC Directive opens the possibility for manufacturers to put on the market products certified to be conform to the EMC requirements without control by a certified body. An amendment we had drafted to maintain the control by a certified body has been rejected.

March 2004, the EU Parliament has adopted the amended text of the EMC Directive. Presently the new EMC Directive is being translated into 20 languages for publication in the OJ.

IARU/EUROCOM amendments are highlighted:

Recital 2. *Member States are responsible for ensuring that radio-communications, including radiobroadcast reception* ***and the amateur radio service operating in accordance with ITU radio regulations****, electrical supply and telecommunications networks, as well as equipment thereto, are protected against electromagnetic disturbance.*

Article 1, paragraph 4 [equipment out of the scope of the Directive], (c**) radio equipment which is not commercially available, including kits of components to be assembled by radio amateurs, within the meaning defined in the Radio Regulations adopted in the framework of the Constitution and Convention of the International Telecommunication Union, as well as commercial equipment modified by and for the use of such radio amateurs.**

Article 2, paragraph 1, (e). *"Electromagnetic disturbance" means any electromagnetic phenomenon which may degrade the performance of equipment.* ***An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself;***

Article 2, paragraph 1, point (f a) (new). *"Safety purposes" means the purposes of safeguarding human life* ***or property;***

Article 2, paragraph 1, point (g a) (new). ***"Electromagnetic environment" means the whole of all electromagnetic phenomena observable in a given location.***

5. PLT – Political issues

The struggle for the protection of the radio spectrum against untolerable interference levels generated by Powerline Telecommunication techniques has gone on since several years.

In technical fora, such as the CENELEC/ETSI JWG, the spectrum users oppose to excessive interference levels generated by wired networks such as those produced by PLT. EU-Mandate 313 does not solve the problem.

Presently the EU Commission, Directorate Information Society, proposes a Commission Recommendation, based on a political decision. This is being discussed by COCOM, the Communications Committee composed of representatives of the Member States.

A draft Commission Recommendation has been rejected by the COCOM members and a new draft will probably be submitted.

6. Contributions from the floor

- Considering the latest developments in the PLT field, the time of technical arguments is over. The EU Commission knows the problem and wants a political decision.
- Mike, OE3MZC proposes to promote “notches” on the amateur radio frequencies.
- Hilary, G4JKS proposes to take legal action at the European Court of Justice (Strasbourg), based on “human rights”, if interchange between amateur radio stations is jeopardized by PLT.
- Chris, SP5HS presented the PLC video of OE3MZC to the Polish Army authorities.
- Dave, K1ZZ and Paul, W4RI reported on the BPL issue in the USA:
    - FCC part 15 does not allow “harmful interference” to legal radio services
    - IEEE examines additional noise levels (1 dB)
    - ARRL raises considerable funds for the defense of the amateur radio spectrum. The programme uses low cost direct mail and donators benefit by tax reduction.
    - US hams report positive experience with Intellon notches
- DARC confirms useful notches by Homeplug

7. Action points

- A majority of participants supported the proposal to examine the solution of notches on amateur radio frequencies. This is a technical issue (JWG?).
- Fund raising for the defense of the spectrum should be considered (IARU EC).
- Contacts with MEP are to be developed by all IARU societies within the European Union.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex: 1

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.

EUROCOM Newsletter

02.09.2004

Parliamentary Question on PLC

1. Commission Recommendation on PLC - Amendment

July 2004 we circulated a request to the EMC/PLC working group members: to approach their national COCOM representatives suggesting an amendment to the Commission Recommendation on PLC, presently under discussion.

The Commission proposal states:

(9) If a network deemed compliant is still creating local interferences or affecting safety services, Member States should take specific measures according to Article 6 of the EMC Directive, with a view to resolve such interferences. In resolving interference between a compliant network and a radio communications service, Member States should take into account the importance of the services, as well as technical and economic aspects. Measures taken should be proportionate, non-discriminatory and transparent.

The underlined sentence is inconsistent with administration's obligations under the international Radio Regulations.

2. Parliamentary Question

MEP Fernando Fernandez-Martin (EA8AK) has addressed a written Parliamentary Question on this subject to the European Commission.

This parliamentary question is in Spanish. It translates like this:

The Commission intends to approve a recommendation relative to PLC technology and possible interference to the radio spectrum users. The draft refers to article 6 of the EMC Directive 336/89/CEE, amended by the Directive 68/93/CEE and states: "…when resolving interference, the Member States should take into account the importance of the services, as well as technical and economic aspects".

By adopting this text, the Commission would recommend a regulation much more relaxed than the present national and international regulations regarding the reduction of interference produced by "… electrical apparatus or installations of any kind, including power distribution networks".

Is the Commission aware that, if the text of its Recommendation is maintained, as approved by COCOM July 7th, it would constitute a breach of the Radio Regulations of the ITU (International Telecommunications Union), which have the force and effect of a treaty committing the responsible public administrations?

3. Thanks

We are grateful to MEP Fernandez-Martin EA8AK for his support in the defense of the radio spectrum.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.

EUROCOM Newsletter

04.11.2004

Parliamentary Question on PLC – Answer from the Commission

1. Parliamentary Question

As reported in EUROCOM Newsletter of 02.09.2004, MEP Fernando Fernandez-Martin (EA8AK) has addressed a written Parliamentary Question to the European Commission. The question concerns a conflict between the text of the draft Commission Recommendation on PLC and the ITU Radio Regulations.

The parliamentary question is in Spanish. It translates like this:

The Commission intends to approve a recommendation relative to PLC technology and possible interference to the radio spectrum users. The draft refers to article 6 of the EMC Directive 336/89/CEE, amended by the Directive 68/93/CEE and states: "…when resolving interference, the Member States should take into account the importance of the services, as well as technical and economic aspects".

By adopting this text, the Commission would recommend a regulation much more relaxed than the present national and international regulations regarding the reduction of interference produced by "… electrical apparatus or installations of any kind, including power distribution networks".

Is the Commission aware that, if the text of its Recommendation is maintained, as approved by COCOM July 7th, it would constitute a breach of the Radio Regulations of the ITU (International Telecommunications Union), which have the force and effect of a treaty committing the responsible public administrations?

2. Answer of the Commission

MEP Fernando Fernandez-Martin has received an answer from the Commission. Here is a translation of the original Spanish text of the answer.

E-2000/04ES
Answer of Mr Rehn
On behalf of the Commission
(26.10.2004)

As stated by your excellency, the Council Directive of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (the EMC[1] Directive) applies to communication systems on the mains (PLC). This Directive compels the Member States to protect adequately radiocommunications. All commercialised electrical and electronic appliances, in particular telecommunications networks, shall comply with the requirements of the Directive, including those regarding the protection of radiocommunications. Member States are obliged to take adequate measures with regard to apparatus and networks failing to satisfy the requirements.

[1] Council Directive 89/336/CEE (rectified JO L 144 de 27.5.1989), amended by Council Directive 93/68/CEE of 22.7.1993 (and rectified JO L 216 de 8.8.1997).

The EMC Directive also recognises that, under local circumstances, it may happen that a system compliant with the Directive causes interference to a radiocommunications service. In such a case, article 6 of the Directive allows the Member States to take special measures to solve the problem. These measures shall be proportionate, non discriminatory and transparent, in accordance with the general legislation of the EU, but may be more restrictive than the requirements of the Directive, under provision of the obligations of notification. To evaluate the proportionality of the measures, the Member States shall take into account the importance of the service and the technical, social and economic aspects, including the possibility to create obstacles to the free circulation of goods in the common market.

Whereas the rules of the International Telecommunications Union (ITU) prescribe a unique solution to the interference problems in situations under consideration, the community legislation permits the adoption of specific measures in function of the problem, thus offering more flexibility. The Commission does not consider that the community norms, including the recommendation under preparation, are therefore incompatible with the ITU, in as far as the objective of the normative measures is to protect radiocommunications by solving interference problems.

The Commission's intention is to prepare a recommendation which provides the regulatory security needed by the enterprises of public services to support the deployment of competitive networks, thus developing an important tool for the pursuit of the Lisbon objectives.

3. Comments

The answer to the parliamentary question is in line with the well known Commission's position.

The Commission confirms its view that the measures to protect radiocommunications services against harmful interference have to "*…take into account the importance of the service and the technical, social and economic aspects, …".* In practice, this means that some services don't need to be protected as much as others.

Thus the Commission rejects the ITU position that ALL radiocommunications services require adequate protection against harmful interference.

Nevertheless the Commission considers that its position is in accordance with the ITU RR, "*…in as far as the objective of the normative measures is to protect radiocommunications by solving interference problems*".

The fact remains that if there is no technical solution to the interference, the national regulators would have to take into account the Commission's Recommendation and sacrifice a radiocommunications service when "*the importance of the service"* is considered to be less than the "*social and economic aspects*" of a "*competitive network".*

It seems highly questionable that this kind of "*flexibility"* is in accordance with the ITU Radio Regulations.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.

EUROCOM Newsletter

31.12.2004

EMC Directive 2004/108/EC

1. Publication

The new EMC Directive 2004/108/EC has been published in the Official Journal of the European Union of 31.12.2004.

The Directive will enter into force on 20 January 2005.

The text of the Directive is hereto appended. See Annex in pdf format.

2. Comments

The IARU/EUROCOM working group has suggested several amendments to the original text proposed by the Commission. These amendments have been submitted to the Parliamentary Committee on Industry, External Trade, Research and Energy (ITRE) by several Members of the European Parliament.

Most of these amendments have been adopted by ITRE as well as by the plenum of the European Parliament. See EUROCOM Newsletter of 17.03.2004.

The text of the new EMC Directive, adopted by the European Council and published today in the Official Journal, maintains these amendments which are now European Law.

Here are these important texts:

Recital (2)
Member States are responsible for ensuring that radiocommunications,including radio broadcast reception <u>and the amateur radio service operating in accordance with International Telecommunication Union (ITU) radio regulations</u>, electrical supply networks and telecommunications networks, as well as equipment connected thereto, are protected against electromagnetic disturbance.

Article 1.2
This Directive shall not apply to:
…

(c) radio equipment used by radio amateurs within the meaning of the Radio Regulations adopted in the framework of the Constitution and Convention of the ITU, unless the equipment is available commercially. Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

Article 2

For the purposes of the Directive, the following definitions shall apply:

…

(c) 'fixed installation' means a particular combination ofseveral types of apparatus and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location;

(d) 'electromagnetic compatibility' means the ability of equipment to function satisfactorily in its electromagnetic environmen without introducing intolerable electromagnetic disturbances to other equipment in that environment;

(e) 'electromagnetic disturbance' means any electromagnetic phenomenon which may degrade the performance of equipment. An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself;

(f) 'immunity' means the ability of equipment to perform as intended without degradation in the presence of an electromagnetic disturbance;

(g) 'safety purposes' means the purposes of safeguarding human life or property;

(h) 'electromagnetic environment' means all electromagnetic phenomena observable in a given location.

3. Thanks

The original Commission proposal for a new Directive of the European Parliament and of the Council on the approximation of the laws of the Member States relating to electromagnetic compatibility was published in the Official Journal on 23.12.2002.

Exactly two years later the new Directive has been published.

This is the end of a legislative process which called for considerable involvement of the IARU/EUROCOM working group.

We extend thanks to all the parties that actively participated in this process, more precisely several members of the EMC working groups of the IARU societies and particularly the Members of the European Parliament who submitted the amendments we suggested:

- MEP Fernando Fernandez-Martin (EA8AK)
- MEP Dr. Peter Liese
- MEP Helmut Kuhne.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Best wishes for a Happy New Year !

Annex: 1

DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 15 December 2004

on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee [1],

Acting in accordance with the procedure referred to in Article 251 of the Treaty [2],

Whereas:

(1) Council Directive 89/336/EEC of 3 May 1989 on the approximation of laws of the Member States relating to electromagnetic compatibility [3] has been the subject of a review under the initiative known as Simpler Legislation for the Internal Market (SLIM). Both the SLIM process and a subsequent in-depth consultation have revealed the need to complete, reinforce and clarify the framework established by Directive 89/336/EEC.

(2) Member States are responsible for ensuring that radiocommunications, including radio broadcast reception and the amateur radio service operating in accordance with International Telecommunication Union (ITU) radio regulations, electrical supply networks and telecommunications networks, as well as equipment connected thereto, are protected against electromagnetic disturbance.

(3) Provisions of national law ensuring protection against electromagnetic disturbance should be harmonised in order to guarantee the free movement of electrical and electronic apparatus without lowering justified levels of protection in the Member States.

(4) Protection against electromagnetic disturbance requires obligations to be imposed on the various economic operators. Those obligations should be applied in a fair and effective way in order to achieve such protection.

(5) The electromagnetic compatibility of equipment should be regulated with a view to ensuring the functioning of the internal market, that is to say, of an area without internal frontiers in which the free movement of goods, persons, services and capital is assured.

(6) The equipment covered by this Directive should include both apparatus and fixed installations. However, separate provision should be made for each. This is so because, whereas apparatus as such may move freely within the Community, fixed installations on the other hand are installed for permanent use at a predefined location, as assemblies of various types of apparatus and, where appropriate, other devices. The composition and function of such installations correspond in most cases to the particular needs of their operators.

(7) Radio equipment and telecommunications terminal equipment should not be covered by this Directive since they are already regulated by Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity [4]. The electromagnetic compatibility requirements in both Directives achieve the same level of protection.

(8) Aircraft or equipment intended to be fitted into aircraft should not be covered by this Directive, since they are already subject to special Community or international rules governing electromagnetic compatibility.

(9) This Directive need not regulate equipment which is inherently benign in terms of electromagnetic compatibility.

(10) This Directive should not deal with the safety of equipment, since that is dealt with by separate Community or national legislation.

(11) Where this Directive regulates apparatus, it should refer to finished apparatus commercially available for the first time on the Community market. Certain components or sub-assemblies should, under certain conditions, be considered to be apparatus if they are made available to the end-user.

[1] OJ C 220, 16.9.2003, p. 13.
[2] Opinion of the European Parliament of 9 March 2004 (not yet published in the Official Journal) and Council Decision of 29 November 2004.
[3] OJ L 139, 23.5.1989, p. 19. Directive as last amended by Directive 93/68/EEC (OJ L 220, 30.8.1993, p. 1).
[4] OJ L 91, 7.4.1999, p. 10. Directive as amended by Regulation (EC) No 1882/2003 (OJ L 284, 31.10.2003, p. 1).

(12) The principles on which this Directive is based are those set out in the Council Resolution of 7 May 1985 on a new approach to technical harmonization and standards [1]. In accordance with that approach, the design and manufacture of equipment is subject to essential requirements in relation to electromagnetic compatibility. Those requirements are given technical expression by harmonised European standards, to be adopted by the various European standardisation bodies, European Committee for Standardisation (CEN), European Committee for Electro-technical Standardisation (CENELEC) and European Telecommunications Standards Institute (ETSI). CEN, CENELEC and ETSI are recognised as the competent institutions in the field of this Directive for the adoption of harmonised standards, which they draw up in accordance with the general guidelines for cooperation between themselves and the Commission, and with the procedure laid down in Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services [2].

(13) Harmonised standards reflect the generally acknowledged state of the art as regards electromagnetic compatibility matters in the European Union. It is thus in the interest of the functioning of the internal market to have standards for the electromagnetic compatibility of equipment which have been harmonised at Community level. Once the reference to such a standard has been published in the *Official Journal of the European Union*, compliance with it should raise a presumption of conformity with the relevant essential requirements, although other means of demonstrating such conformity should be permitted. Compliance with a harmonised standard means conformity with its provisions and demonstration thereof by the methods the harmonised standard describes or refers to.

(14) Manufacturers of equipment intended to be connected to networks should construct such equipment in a way that prevents networks from suffering unacceptable degradation of service when used under normal operating conditions. Network operators should construct their networks in such a way that manufacturers of equipment liable to be connected to networks do not suffer a disproportionate burden in order to prevent networks from suffering an unacceptable degradation of service. The European standardisation organisations should take due account of that objective (including the cumulative effects of the relevant types of electromagnetic phenomena) when developing harmonised standards.

(15) It should be possible to place apparatus on the market or put it into service only if the manufacturers concerned have established that such apparatus has been designed and manufactured in conformity with the requirements of this Directive. Apparatus placed on the market should bear the 'CE' marking attesting to compliance with this Directive. Although conformity assessment should be the responsibility of the manufacturer, without any need to involve an independent conformity assessment body, manufacturers should be free to use the services of such a body.

(16) The conformity assessment obligation should require the manufacturer to perform an electromagnetic compatibility assessment of apparatus, based on relevant phenomena, in order to determine whether or not it meets the protection requirements under this Directive.

(17) Where apparatus is capable of taking different configurations, the electromagnetic compatibility assessment should confirm whether the apparatus meets the protection requirements in the configurations foreseeable by the manufacturer as representative of normal use in the intended applications; in such cases it should be sufficient to perform an assessment on the basis of the configuration most likely to cause maximum disturbance and the configuration most susceptible to disturbance.

(18) Fixed installations, including large machines and networks, may generate electromagnetic disturbance, or be affected by it. There may be an interface between fixed installations and apparatus, and the electromagnetic disturbances produced by fixed installations may affect apparatus, and vice versa. In terms of electromagnetic compatibility, it is irrelevant whether the electromagnetic disturbance is produced by apparatus or by a fixed installation. Accordingly, fixed installations and apparatus should be subject to a coherent and comprehensive regime of essential requirements. It should be possible to use harmonised standards for fixed installations in order to demonstrate conformity with the essential requirements covered by such standards.

(19) Due to their specific characteristics, fixed installations need not be subject to the affixation of the 'CE' marking or to the declaration of conformity.

(20) It is not pertinent to carry out the conformity assessment of apparatus placed on the market for incorporation into a given fixed installation, and otherwise not commercially available, in isolation from the fixed installation into which it is to be incorporated. Such apparatus should therefore be exempted from the conformity assessment procedures normally applicable to apparatus. However, such apparatus should not be permitted to compromise the conformity of the fixed installation into which it is incorporated. Should apparatus be incorporated into more than one identical fixed installation, identifying the electromagnetic compatibility characteristics of these installations should be sufficient to ensure exemption from the conformity assessment procedure.

[1] OJ C 136, 4.6.1985, p. 1.
[2] OJ L 204, 21.7.1998, p. 37. Directive as last amended by the 2003 Act of Accession.

(21) A transitional period is necessary in order to ensure that manufacturers and other concerned parties are able to adapt to the new regulatory regime.

(22) Since the objective of this Directive, namely to ensure the functioning of the internal market by requiring equipment to comply with an adequate level of electromagnetic compatibility, cannot be sufficiently achieved by Member States and can therefore, by reason of its scale and effects, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

(23) Directive 89/336/EEC should therefore be repealed,

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

GENERAL PROVISIONS

Article 1

Subject matter and scope

1. This Directive regulates the electromagnetic compatibility of equipment. It aims to ensure the functioning of the internal market by requiring equipment to comply with an adequate level of electromagnetic compatibility. This Directive applies to equipment as defined in Article 2.

2. This Directive shall not apply to:

(a) equipment covered by Directive 1999/5/EC;

(b) aeronautical products, parts and appliances as referred to in Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency ([1]);

(c) radio equipment used by radio amateurs within the meaning of the Radio Regulations adopted in the framework of the Constitution and Convention of the ITU ([2]), unless the equipment is available commercially. Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

3. This Directive shall not apply to equipment the inherent nature of the physical characteristics of which is such that:

(a) it is incapable of generating or contributing to electromagnetic emissions which exceed a level allowing radio and telecommunication equipment and other equipment to operate as intended; and

(b) it will operate without unacceptable degradation in the presence of the electromagnetic disturbance normally consequent upon its intended use.

4. Where, for the equipment referred to in paragraph 1, the essential requirements referred to in Annex I are wholly or partly laid down more specifically by other Community directives, this Directive shall not apply, or shall cease to apply, to that equipment in respect of such requirements from the date of implementation of those directives.

5. This Directive shall not affect the application of Community or national legislation regulating the safety of equipment.

Article 2

Definitions

1. For the purposes of this Directive, the following definitions shall apply:

(a) 'equipment' means any apparatus or fixed installation;

(b) 'apparatus' means any finished appliance or combination thereof made commercially available as a single functional unit, intended for the end user and liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance;

(c) 'fixed installation' means a particular combination of several types of apparatus and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location;

(d) 'electromagnetic compatibility' means the ability of equipment to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to other equipment in that environment;

(e) 'electromagnetic disturbance' means any electromagnetic phenomenon which may degrade the performance of equipment. An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself;

([1]) OJ L 240, 7.9.2002, p. 1. Regulation as amended by Commission Regulation (EC) No 1701/2003 (OJ L 243, 27.9.2003, p. 5).

([2]) Constitution and Convention of the International Telecommunication Union adopted by the Additional Plenipotentiary Conference (Geneva, 1992) as amended by the Plenipotentiary Conference (Kyoto, 1994).

(f) 'immunity' means the ability of equipment to perform as intended without degradation in the presence of an electromagnetic disturbance;

(g) 'safety purposes' means the purposes of safeguarding human life or property;

(h) 'electromagnetic environment' means all electromagnetic phenomena observable in a given location.

2. For the purposes of this Directive the following shall be deemed to be an apparatus within the meaning of paragraph 1(b):

(a) 'components' or 'sub-assemblies' intended for incorporation into an apparatus by the end user, which are liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance;

(b) 'mobile installations' defined as a combination of apparatus and, where applicable, other devices, intended to be moved and operated in a range of locations.

Article 3

Placing on the market and/or putting into service

Member States shall take all appropriate measures to ensure that equipment is placed on the market and/or put into service only if it complies with the requirements of this Directive when properly installed, maintained and used for its intended purpose.

Article 4

Free movement of equipment

1. Member States shall not impede, for reasons relating to electromagnetic compatibility, the placing on the market and/or the putting into service in their territory of equipment which complies with this Directive.

2. The requirements of this Directive shall not prevent the application in any Member State of the following special measures concerning the putting into service or use of equipment:

(a) measures to overcome an existing or predicted electromagnetic compatibility problem at a specific site;

(b) measures taken for safety reasons to protect public telecommunications networks or receiving or transmitting stations when used for safety purposes in well-defined spectrum situations.

Without prejudice to Directive 98/34/EC, Member States shall notify those special measures to the Commission and to the other Member States.

The special measures which have been accepted shall be published by the Commission in the *Official Journal of the European Union*.

3. Member States shall not create any obstacles to the display and/or demonstration at trade fairs, exhibitions or similar events of equipment which does not comply with this Directive, provided that a visible sign clearly indicates that such equipment may not be placed on the market and/or put into service until it has been brought into conformity with this Directive. Demonstration may only take place provided that adequate measures are taken to avoid electromagnetic disturbances.

Article 5

Essential requirements

The equipment referred to in Article 1 shall meet the essential requirements set out in Annex I.

Article 6

Harmonised standards

1. 'Harmonised standard' means a technical specification adopted by a recognised European standardisation body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC for the purpose of establishing a European requirement. Compliance with a 'harmonised standard' is not compulsory.

2. The compliance of equipment with the relevant harmonised standards whose references have been published in the *Official Journal of the European Union* shall raise a presumption, on the part of the Member States, of conformity with the essential requirements referred to in Annex I to which such standards relate. This presumption of conformity is limited to the scope of the harmonised standard(s) applied and the relevant essential requirements covered by such harmonised standard(s).

3. Where a Member State or the Commission considers that a harmonised standard does not entirely satisfy the essential requirements referred to in Annex I, it shall bring the matter before the Standing Committee set up by Directive 98/34/EC (hereinafter 'the Committee'), stating its reasons. The Committee shall deliver an opinion without delay.

4. Upon receipt of the Committee's opinion, the Commission shall take one of the following decisions with regard to the references to the harmonised standard concerned:

(a) not to publish;

(b) to publish with restrictions;

(c) to maintain the reference in the *Official Journal of the European Union*;

(d) to withdraw the reference from the *Official Journal of the European Union*.

The Commission shall inform the Member States of its decision without delay.

CHAPTER II

APPARATUS

Article 7

Conformity assessment procedure for apparatus

Compliance of apparatus with the essential requirements referred to in Annex I shall be demonstrated by means of the procedure described in Annex II (internal production control). However, at the discretion of the manufacturer or of his authorised representative in the Community, the procedure described in Annex III may also be followed.

Article 8

'CE' marking

1. Apparatus whose compliance with this Directive has been established by means of the procedure laid down in Article 7 shall bear the 'CE' marking which attests to that fact. The affixing of the 'CE' marking shall be the responsibility of the manufacturer or his authorised representative in the Community. The 'CE' marking shall be affixed in accordance with Annex V.

2. Member States shall take the necessary measures to prohibit the affixing to the apparatus, or to its packaging, or to the instructions for its use, of marks which are likely to mislead third parties in relation to the meaning and/or graphic form of the 'CE' marking.

3. Any other mark may be affixed to the apparatus, its packaging, or the instructions for its use, provided that neither the visibility nor the legibility of the 'CE' marking is thereby impaired.

4. Without prejudice to Article 10, if a competent authority establishes that the 'CE' marking has been unduly affixed, the manufacturer or his authorised representative in the Community shall bring the apparatus into conformity with the provisions concerning the 'CE' marking under conditions imposed by the Member State concerned.

Article 9

Other marks and information

1. Each apparatus shall be identified in terms of type, batch, serial number or any other information allowing for the identification of the apparatus.

2. Each apparatus shall be accompanied by the name and address of the manufacturer and, if he is not established within the Community, the name and address of his authorised representative or of the person in the Community responsible for placing the apparatus on the Community market.

3. The manufacturer shall provide information on any specific precautions that must be taken when the apparatus is assembled, installed, maintained or used, in order to ensure that, when put into service, the apparatus is in conformity with the protection requirements set out in Annex I, point 1.

4. Apparatus for which compliance with the protection requirements is not ensured in residential areas shall be accompanied by a clear indication of this restriction of use, where appropriate also on the packaging.

5. The information required to enable apparatus to be used in accordance with the intended purpose of the apparatus shall be contained in the instructions accompanying the apparatus.

Article 10

Safeguards

1. Where a Member State ascertains that apparatus bearing the 'CE' marking does not comply with the requirements of this Directive, it shall take all appropriate measures to withdraw the apparatus from the market, to prohibit its placing on the market or its putting into service, or to restrict the free movement thereof.

2. The Member State concerned shall immediately inform the Commission and the other Member States of any such measure, indicating the reasons and specifying, in particular, whether non-compliance is due to:

(a) failure to satisfy the essential requirements referred to in Annex I, where the apparatus does not comply with the harmonised standards referred to in Article 6;

(b) incorrect application of the harmonised standards referred to in Article 6;

(c) shortcomings in the harmonised standards referred to in Article 6.

3. The Commission shall consult the parties concerned as soon as possible, following which it shall inform the Member States whether or not it finds the measure to be justified.

4. Where the measure referred to in paragraph 1 is attributed to a shortcoming in harmonised standards, the Commission, after consulting the parties, shall, if the Member State concerned intends to uphold the measure, bring the matter before the Committee and initiate the procedure laid down in Article 6(3) and (4).

5. Where the non-compliant apparatus has been subject to the conformity assessment procedure referred to in Annex III, the Member State concerned shall take appropriate action in respect of the author of the statement referred to in Annex III, point 3, and shall inform the Commission and the other Member States accordingly.

Article 11

Decisions to withdraw, prohibit or restrict the free movement of apparatus

1. Any decision taken pursuant to this Directive to withdraw apparatus from the market, prohibit or restrict its placing on the market or its putting into service, or restrict the free movement thereof, shall state the exact grounds on which it is based. Such decisions shall be notified without delay to the party concerned, who shall at the same time be informed of the remedies available to him under the national law in force in the Member State in question and of the time limits to which such remedies are subject.

2. In the event of a decision as referred to in paragraph 1, the manufacturer, his authorised representative, or any other interested party shall have the opportunity to put forward his point of view in advance, unless such consultation is not possible because of the urgency of the measure to be taken as justified in particular with respect to public interest requirements.

Article 12

Notified bodies

1. Member States shall notify the Commission of the bodies which they have designated to carry out the tasks referred to in Annex III. When determining the bodies to be designated, Member States shall apply the criteria laid down in Annex VI.

Such notification shall state whether the bodies are designated to carry out the tasks referred to in Annex III for all apparatus covered by this Directive, and/or the essential requirements referred to in Annex I or whether the scope of designation is limited to certain specific aspects and/or categories of apparatus.

2. Bodies which comply with the assessment criteria established by the relevant harmonised standards shall be presumed to comply with the criteria set out in Annex VI covered by such harmonised standards. The Commission shall publish in the *Official Journal of the European Union* the references of those standards.

3. The Commission shall publish in the *Official Journal of the European Union* a list of notified bodies. The Commission shall ensure that the list is kept up to date.

4. If a Member State finds that a notified body no longer meets the criteria listed in Annex VI, it shall inform the Commission and the other Member States accordingly. The Commission shall withdraw the reference to that body from the list referred to in paragraph 3.

CHAPTER III

FIXED INSTALLATIONS

Article 13

Fixed installations

1. Apparatus which has been placed on the market and which may be incorporated into a fixed installation is subject to all relevant provisions for apparatus set out in this Directive.

However, the provisions of Articles 5, 7, 8 and 9 shall not be compulsory in the case of apparatus which is intended for incorporation into a given fixed installation and is otherwise not commercially available. In such cases, the accompanying documentation shall identify the fixed installation and its electromagnetic compatibility characteristics and shall indicate the precautions to be taken for the incorporation of the apparatus into the fixed installation in order not to compromise the conformity of that installation. It shall furthermore include the information referred to in Article 9(1) and (2).

2. Where there are indications of non-compliance of the fixed installation, in particular, where there are complaints about disturbances being generated by the installation, the competent authorities of the Member State concerned may request evidence of compliance of the fixed installation, and, when appropriate, initiate an assessment.

Where non-compliance is established, the competent authorities may impose appropriate measures to bring the fixed installation into compliance with the protection requirements set out in Annex I, point 1.

3. Member States shall set out the necessary provisions for identifying the person or persons responsible for the establishment of compliance of a fixed installation with the relevant essential requirements.

CHAPTER IV

FINAL PROVISIONS

Article 14

Repeal

Directive 89/336/EEC is hereby repealed as from 20 July 2007.

References to Directive 89/336/EEC shall be construed as references to this Directive and should be read in accordance with the correlation table set out in Annex VII.

Article 15

Transitional provisions

Member States shall not impede the placing on the market and/or the putting into service of equipment which is in compliance with the provisions of Directive 89/336/EEC and which was placed on the market before 20 July 2009.

Article 16

Transposition

1. Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive by 20 January 2007. They shall forthwith inform the Commission thereof. They shall apply those provisions as from 20 July 2007. When Member States adopt those provisions, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

Article 17

Entry into force

This Directive shall enter into force on the twentieth day after its publication in the *Official Journal of the European Union*.

Article 18

Addressees

This Directive is addressed to the Member States.

Done at Strasbourg, 15 December 2004.

For the European Parliament	*For the Council*
The President	*The President*
J. BORRELL FONTELLES	A. NICOLAÏ

ANNEX I

ESSENTIAL REQUIREMENTS REFERRED TO IN ARTICLE 5

1. **Protection requirements**

Equipment shall be so designed and manufactured, having regard to the state of the art, as to ensure that:

(a) the electromagnetic disturbance generated does not exceed the level above which radio and telecommunications equipment or other equipment cannot operate as intended;

(b) it has a level of immunity to the electromagnetic disturbance to be expected in its intended use which allows it to operate without unacceptable degradation of its intended use.

2. **Specific requirements for fixed installations**

Installation and intended use of components

A fixed installation shall be installed applying good engineering practices and respecting the information on the intended use of its components, with a view to meeting the protection requirements set out in Point 1. Those good engineering practices shall be documented and the documentation shall be held by the person(s) responsible at the disposal of the relevant national authorities for inspection purposes for as long as the fixed installation is in operation.

ANNEX II

CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 7

(internal production control)

1. The manufacturer shall perform an electromagnetic compatibility assessment of the apparatus, on the basis of the relevant phenomena, with a view to meeting the protection requirements set out in Annex I, point 1. The correct application of all the relevant harmonised standards whose references have been published in the *Official Journal of the European Union* shall be equivalent to the carrying out of the electromagnetic compatibility assessment.
2. The electromagnetic compatibility assessment shall take into account all normal intended operating conditions. Where the apparatus is capable of taking different configurations, the electromagnetic compatibility assessment shall confirm whether the apparatus meets the protection requirements set out in Annex I, point 1, in all the possible configurations identified by the manufacturer as representative of its intended use.
3. In accordance with the provisions set out in Annex IV, the manufacturer shall draw up technical documentation providing evidence of the conformity of the apparatus with the essential requirements of this Directive.
4. The manufacturer or his authorised representative in the Community shall hold the technical documentation at the disposal of the competent authorities for at least ten years after the date on which such apparatus was last manufactured.
5. The compliance of apparatus with all relevant essential requirements shall be attested by an EC declaration of conformity issued by the manufacturer or his authorised representative in the Community.
6. The manufacturer or his authorised representative in the Community shall hold the EC declaration of conformity at the disposal of the competent authorities for a period of at least ten years after the date on which such apparatus was last manufactured.
7. If neither the manufacturer nor his authorised representative is established within the Community, the obligation to hold the EC declaration of conformity and the technical documentation at the disposal of the competent authorities shall lie with the person who places the apparatus on the Community market.
8. The manufacturer must take all measures necessary to ensure that the products are manufactured in accordance with the technical documentation referred to in point 3 and with the provisions of this Directive that apply to them.
9. The technical documentation and the EC declaration of conformity shall be drawn up in accordance with the provisions set out in Annex IV.

ANNEX III

CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 7

1. This procedure consists of applying Annex II, completed as follows:
2. The manufacturer or his authorised representative in the Community shall present the technical documentation to the notified body referred to in Article 12 and request the notified body for an assessment thereof. The manufacturer or his authorised representative in the Community shall specify to the notified body which aspects of the essential requirements must be assessed by the notified body.
3. The notified body shall review the technical documentation and assess whether the technical documentation properly demonstrates that the requirements of the Directive that it is to assess have been met. If the compliance of the apparatus is confirmed, the notified body shall issue a statement to the manufacturer or his authorised representative in the Community confirming the compliance of the apparatus. That statement shall be limited to those aspects of the essential requirements which have been assessed by the notified body.
4. The manufacturer shall add the statement of the notified body to the technical documentation.

ANNEX IV

TECHNICAL DOCUMENTATION AND EC DECLARATION OF CONFORMITY

1. **Technical documentation**

The technical documentation must enable the conformity of the apparatus with the essential requirements to be assessed. It must cover the design and manufacture of the apparatus, in particular:

— a general description of the apparatus;

— evidence of compliance with the harmonised standards, if any, applied in full or in part;

— where the manufacturer has not applied harmonised standards, or has applied them only in part, a description and explanation of the steps taken to meet the essential requirements of the Directive, including a description of the electromagnetic compatibility assessment set out in Annex II, point 1, results of design calculations made, examinations carried out, test reports, etc.;

— a statement from the notified body, when the procedure referred to in Annex III has been followed.

2. **EC declaration of conformity**

The EC declaration of conformity must contain, at least, the following:

— a reference to this Directive,

— an identification of the apparatus to which it refers, as set out in Article 9(1),

— the name and address of the manufacturer and, where applicable, the name and address of his authorised representative in the Community,

— a dated reference to the specifications under which conformity is declared to ensure the conformity of the apparatus with the provisions of this Directive,

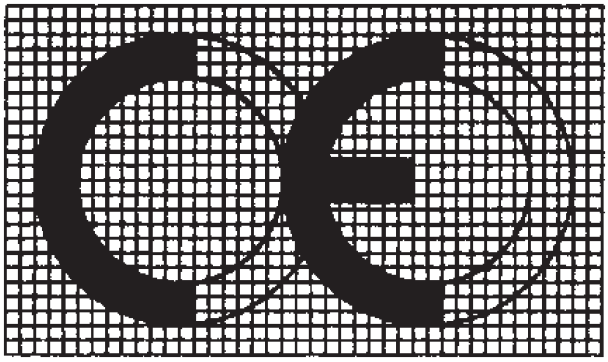
— the date of that declaration,

— the identity and signature of the person empowered to bind the manufacturer or his authorised representative.

ANNEX V

'CE' MARKING REFERRED TO IN ARTICLE 8

The 'CE' marking shall consist in the initials 'CE' taking the following form:



The 'CE' marking must have a height of at least 5 mm. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.

The 'CE' marking must be affixed to the apparatus or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents.

Where the apparatus is the subject of other Directives covering other aspects and which also provide for the 'CE' marking, the latter shall indicate that the apparatus also conforms with those other Directives.

However, where one or more of those Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the 'CE' marking shall indicate conformity only with the Directives applied by the manufacturer. In that case, particulars of the Directives applied, as published in the *Official Journal of the European Union*, must be given in the documents, notices or instructions required by the Directives and accompanying such apparatus.

ANNEX VI

CRITERIA FOR THE ASSESSMENT OF THE BODIES TO BE NOTIFIED

1. The bodies notified by the Member States shall fulfil the following minimum conditions:
   (a) availability of personnel and of the necessary means and equipment;
   (b) technical competence and professional integrity of personnel;
   (c) independence in preparing the reports and performing the verification function provided for in this Directive;
   (d) independence of staff and technical personnel in relation to all interested parties, groups or persons directly or indirectly concerned with the equipment in question;
   (e) maintenance of professional secrecy by personnel;
   (f) possession of civil liability insurance unless such liability is covered by the Member State under national law.
2. Fulfilment of the conditions laid down in point 1 shall be verified at intervals by the competent authorities of the Member State.

ANNEX VII

CORRELATION TABLE

Directive 89/336/EEC	This Directive
Article 1, point 1	Article 2(1)(a), (b) and (c)
Article 1, point 2	Article 2(1)(e)
Article 1, point 3	Article 2(1)(f)
Article 1, point 4	Article 2(1)(d)
Article 1, points 5 and 6	-
Article 2(1)	Article 1(1)
Article 2(2)	Article 1(4)
Article 2(3)	Article 1(2)
Article 3	Article 3
Article 4	Article 5 and Annex I
Article 5	Article 4(1)
Article 6	Article 4(2)
Article 7(1)(a)	Article 6(1) and (2)
Article 7(1)(b)	-
Article 7(2).	-
Article 7(3)	-
Article 8(1)	Article 6(3) and (4)
Article 8(2)	-
Article 9(1)	Article 10(1) and (2)
Article 9(2)	Article 10(3) and (4)
Article 9(3)	Article 10(5)
Article 9(4)	Article 10(3)
Article 10(1), first sub-paragraph	Article 7, Annexes II and III
Article 10(1), second sub-paragraph	Article 8
Article 10(2)	Article 7, Annexes II and III
Article 10(3)	-
Article 10(4)	-
Article 10(5)	Article 7, Annexes II and III
Article 10(6)	Article 12
Article 11	Article 14
Article 12	Article 16
Article 13	Article 18
Annex I, point 1	Annex IV, point 2
Annex I, point 2	Annex V
Annex II	Annex VI
Annex III, last paragraph	Article 9(5)

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTER

2003

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International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

02.02.2003

Power Line Technology : HF bands under fire

1. Digital telecommunications

Over the last years, the development of digital telecommunication networks (local networks as well the Internet) has created a worldwide market and triggered a tremendous competition between network providers. Every possible technology is being investigated. New specialised infrastructures are under construction (fiberglass). Meanwhile, existing networks of all kinds are converted to digital networks.

The technological evolution asks for ever growing rates of data exchange. POTS (the Plain Old Telephone Standard), with its 600 ohm lines, transmitted (and still transmits) voice within a frequency range of 150Hz - 3500Hz. Now the same unshielded twisted pairs are used for ADSL (Analogous Digital Subscriber Lines) with a frequency range of 0.15MHz - 1MHz. The next step could be VDSL covering 0.5MHz - 30MHz.

Coax Cable TV networks are also used for digital telecommunications on normalised TV channels.

Presently, the widest existing copper network, i.e. the electrical power distribution wires (the mains) are being investigated for digital telecommunications. Digital signals have been superposed on the 50Hz power lines since a very long time, e.g. for the telecommand of end user meter switches. These signals are low frequency and occur over very limited time periods. Presently, Power Line Telecommunications inject wideband (0.5MHz - 30MHz) digital signals on the same powerlines for providing "Internet from the Mains" to the consumer market.

2. Network radiation

When HF signals are injected in electrical conductors, electromagnetic radiation results. However, the radiation can be limited :

- shielding contains radiation (coaxial lines)
- in principle, balanced lines don't radiate (antenna feeders, twisted telephone lines)

On the other hand, several factors favour radiation :

- poor shielding
- poor impedance adaptation
- imbalance of open lines

Cable TV networks radiate VHF/UHF energy when shielding fails (aging) and also because of faulty impedance adaptation (end users connect improper cables).

Telephone lines (unshielded twisted pairs) radiate because of lack of shielding and imperfect balance. For ADSL, the radiation is limited, but if VDSL is deployed, the problem will affect the whole HF spectrum.

The worst case is PLC (also called PLT). Indeed, power lines are neither shielded, nor balanced. Moreover, all kinds of appliances are connected to the mains by the end users. High levels of HF radiation are experienced.

PLC exists in two flavours:

- access PLC where power utilities offer Internet on the mains
- indoor PLC where modems are used on the mains for indoor local area networks (pLAN)

3. EMC

The European Union EMC Directive **89/336/EEC** protects the radio services against undue electromagnetic radiation produced by electrical appliances.

Product standards have been developed to define the radiation limits. Up till now, no such limits have been defined for networks.

April 2001, the European Commission delivered Mandate 313 to CEN, CENELEC and ETSI, requesting these European standardisation institutes :

- *to prepare and adopt harmonised standards covering the electromagnetic compatibility requirements (emission and immunity) for telecommunication networks using:*
  - *power lines*
  - *coaxial cables*
  - *telephone wires (e.g. using xDSL technology)*

- *to consider the feasibility of harmonised standards covering the electromagnetic compatibility requirements (emission and immunity) for other types of telecommunication networks, and, when pertinent, to prepare and adopt such harmonised standards.*

The institutes set up a Joint Working Group (JWG) which has been trying to define common EMC limits for all kinds of telecommunication networks.

CEPT also examined the case (SE35 working group) and work is going on in CISPR-I. CISPR is the International Special Committee on Radio Interference of the IEC, the International Electrotechnical Commission, a worldwide organisation. CISPR-I is a subcommittee for interference related to multimedia equipment.

Meanwhile, national enforcement limits for network radiation have been defined in the UK (MPT1570) and in Germany (NB30), but are not implemented.

4. The "Stakeholders" meeting

According to the EMC Directive, the maximum electromagnetic disturbance generated by the network shall be such as not to hinder the normal operation of radio services.

ADSL can be operated without generating disturbance incompatible with radio services. PLC can not, as far as medium and short waves are concerned.

The PLC-Forum heavily lobbies the European Commission for a relaxation of the radiation limits in order to deploy the technology.

HF users, army, air security, broadcast, amateur radio bundle their forces to resist the threat.

The JWG could not reach sufficient consensus and develop a harmonised network standard. Therefore the European Commission convened a restricted "Stakeholders" meeting January 9, 2003. Initially intended for CENELEC and ETSI representatives and EMC experts, the PLC-Forum managed to participate "en force". Some administrations also were invited and the EUROCOM chairman was admitted on his request. A BBC delegate was the only other representative of the HF users.

I had prepared CD's with video recordings of PLC made in Austria by ÖVSV, the Austrian IARU Region 1 society, and offered them to the European Commission representatives and to some other participants.

The European Commission clearly favours PLC as a tool for market competition. Apparently, short wave broadcast and HF amateur radio are not considered as important. Only security services need protection.

Mandate 313 is confirmed. If no harmonised standards for networks can be developed, product standards will be called for.

5. HF user groups, work in committees and actions by member societies

In UK, Germany, Austria, Belgium and the Netherlands, HF user groups exchange information and insist to their authorities on the need to preserve the HF spectrum.

Several representatives of IARU societies are actively involved in PLC handling technical committees:

- Hilary Claytonsmith, G4JKS (SE35, JWG)
- Ha-Jo Brandt, DJ1ZB (SE35, JWG, ETSI)
- Erich Lemke, DJ1BD (CENELEC/SC205A)
- Gaston Bertels, ON4WF (ETSI, CENELEC/SC205A)

Other members are actively participating in their professional capacity :

- Hans Blondeel, PA7BT (CEPT)
- Chris Slomczynski, SP5HS (CEPT)
- Christian Verholt, OZ8CY (CISPR)

Lately, the JWG decided to circulate a questionnaire to the national standardisation organisations (NSO's) on the specification of limits for radiation disturbance emissions from telecommunications cables up to 30 MHz. We drafted a letter insisting on the need to opt for a choice compatible with the protection of the radio services (NB30 or lower) and asked the EUROCOM member societies to send it to their NSO's.

Similarly, a second letter draw the attention of the NSO's on the revision of the CISPR-22 standard where the drafted version (CISPR/I/44/CD) for broadband emissions proposes limits incompatible with the protection of the radio services.

January 2003, the JWG decided not to circulate the questionnaire.

The next CISPR-I meeting in Red Bank will most probably be crucial.

6. Complaints

At the "Stakeholders" meeting as well as at the PLT working group meeting of CENELEC, it has been said that no official complaints had been submitted to the authorities whereas several thousand lines of Access PLT have been running since months.

Although I objected, presenting the ÖVSV recordings, I could not refer to precise official complaints. PLT promotors, as well as the EU Commission representatives, thus have a strong case and the HF users appear as going hectic for no reason. When defending the case of the HF users, especially of the amateur radio service, we would be better off if we could present a list of complaints officially submitted.

Therefore I have started a listing of officially filed complaints for interference caused by PLT anywhere in Europe. Up till now, I have detailed information of complaints registered in Austria and in the Netherlands.

Member societies are urged to forward to me precise information about any complaints officially lodged for interference by PLT.

The list of complaints is hereto appended. It will be updated whenever new complaints are filed.

The ÖVSV recordings are available for download : http://www.powerline-plc.info/video.html

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex: 1

Complaints about PLT interference to radio services

01/02/2003

Date	Access or Indoor	Product name Manufacturer User	Plaintiff	Country / Town	Authority	Result
2001.10.00	Access	Ascom, EVN	Mike Zwingl, OE3MZC	Triesterspitz, Neunkirchen, **Austria**	Bundesministerium f. Verkehr Bundesministerium f. Wirtschaft	Measurements, no results published Product does not comply EN55022B--CE-mark
2002.01.10	Access	Ascom, EVN	Mike Zwingl, OE3MZC	Triesterspitz, Neunkirchen, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	open
2002.01.10	Access	Ascom, EVN	Mike Zwingl, OE3MZC	Triesterstr 78 Stg. 9, Neunkirchen, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	open
2002.01.10	Access	Ascom, EVN	Mike Zwingl, OE3MZC	Triesterstr.68 Stg. 9, Neunkirchen, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	open
2002.01.14	Access	Ascom, EVN	Mike Zwingl, OE3MZC	Triesterstr 80 Stg. 9, Neunkirchen, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	open
2002.02.00	Access	Mainnet Utility Co. NUON	W.K.Melenhorst, PA1WM	Arnhem, **Netherlands**	Agentschap Telecom	Conducted and radiation measurements. No results published
2002.11.04	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Gierkeweg 15-25 Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.11.04	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Hoffmannstr. 16-18 Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.11.04	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Leonfeldnerstr 150, Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published

2002.11.04	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Hoffmannstr. 20-22 Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Riehlstr 34a, FULPMES, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Tirolerstr 25, SILZ, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Eduard Bodemgasse 8, Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Walter Greilstr., Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Knappenweg 23, FULPMES, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Kirchenplatz, FULPMES, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Müehlwiese N47deg 9m12,8" E11deg20m58,2" FULPMES, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Bildungszentrum OETZTAL, SILZ, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Silzcenter Hauptstr. SILZ, Tirol, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Resselstr. TÜV, Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published

2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Muellerstr., Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Schopfstr, Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.05	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Maximilianstr, Innsbruck, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Autobahn A12, km 60, Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	ASCOM, TIWAG,	Ing. Mike Zwingl, OE3MZC	Hall in Tirol, **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Galvanistr.4, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Rotterdamweg 17, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Galvanistr.4, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Hoffmannstr.16-20, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.06	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Dornacherstr17, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.28	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Galvanistr.10, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.28	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Biesenfeld, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published

2002.12.28	Access	MANET, SPEED-WEB, LINZ-AG,	Ing. Mike Zwingl, OE3MZC	Dornacherstr 11, LINZ Urfahr **AUSTRIA**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.30	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Dornacherstr.17 Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2002.12.30	Access	Speed- Web LINZ AG	Michael Kastelic, OE1MCU	Galvanistr. 10 Linz, **Austria**	Bundesministerium f. Verkehr and Bundesministerium f. Wirtschaft	Measurements ongoing, no results published
2003.01.00	Access	Speed- Web LINZ AG	Reisinger Erwin, OE5ERN	Linz, **Austria**	Bundesministerium für Wirtschaft und Arbeit,...	Measurements ongoing, no results published
2003.12.31						
2003.12.31						
2003.12.31						
2003.12.31						
2003.12.31						

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

27.03.2003

Meeting with DG Enterprise on Power Line Technology

1. Venue

At the "Stakeholders" meeting January 9, 2003 I offered CDs with PLC interference recordings to the DG Enterprise representatives (see EUROCOM Newsletter of 02.02.2003).

Mark Bogers and Thierry Brefort accepted to meet a delegation of the European amateur radio societies to discuss the PLT issue.

This meeting took place at the European Commission, Directorate General Industry, March 24, 2003 from about 10.30 h to 12.00 h.

The delegates were:

- Ha-Jo Brandt, DJ1ZB (DARC Standards Committee)
- Jacques Mezan de Malartic, F2MM (REF-Union EMC Manager)
- Mike Zwingl, OE3MZC (President ÖVSV)
- Jan Janssen, PA0JMG (VERON EMC Manager)
- John Devoldere, ON4UN (President UBA)
- Koen Vermeersch, ON4CCP (UBA EMC Manager)
- Peter Kuschke, DL1RPL (NATO Frequency management)
- Kwie-Sing Kho (NATO Frequency Management)
- Gaston Bertels, ON4WF (IARU/EUROCOM WG Chairman)

2. Presentations

Three presentations had been prepared:

- Ha-Jo Brandt, DL1ZB presented a general overview of the PLT issue, reviewing the attempts by the standardisation bodies, the Joint Working Group as well as national authorities to set acceptable limits for networks radiation. He also explained why there are relatively few complaints by HF users, compared to the existing threat. He finally questioned the loss of ethics in the field of radio communications resulting from deregulation.
- Jacques Mezan de Malartic, F2MM showed how the reception of HF amateur radio stations as well as short wave broadcast stations would be degraded by networks radiation under the NB30 limits. He insisted on the dramatic effects resulting from applying narrowband spurious radiation limits to wideband unwanted radiations. Moreover, harmonics and intermodulation products would possibly cause significant interference to VHF and higher bands in case of the intensive use of unshielded wired networks for wideband telecommunications (PLT and VDSL).
- Mike Zwingl, OE3MZC reported on the interference caused by ASCOM and by MAINNET (spread spectrum) trials in Austria. He presented recordings made with ordinary amateur and shortwave broadcast receivers in the vicinity of houses where PLT is being tested. The effect of digitally produced 30 dB notches on the amateur bands, provided in a specific type of PLT chip employed by the Homeplug Alliance for inhouse PLT modems, was also reviewed.

The presentations of Ha-Jo Brandt and Jacques Mezan de Malartic are hereto appended (annexes 1 and 2). The video recordings presented by Mike Zwingl can be downloaded at:
http://www.powerline-plc.info/video

3. Discussion

Answering the arguments presented by the delegates, the DG Enterprise representatives developped the following vues:

- It is the task of the European Commission to promote access for all citizens to the Information Society. Technologies opening new areas of competition are beneficial to the community.
- The society's demand for digital telecommunications is rapidly growing. Developing telecommunication networks technologies will cause interferences to the radio services, more precisely on frequencies which less and less people are using now since most of the services that short waves offer can be replaced more efficiently by "modern communications technologies" on higher frequencies.

  The delegates objected that HF frequencies offer the unique advantage of medium and long range communications without intermediate relaying, always subject to control and failure.

- The electromagnetic medium will be solicited anyway and the European Commission will have to make a trade between radio and additional competition on the last mile of the telecom sector.

  Remark: This form of solicitation of the electromagnetic spectrum by the European Commission does not seem very promising. ECC and CEPT SE have a much more moderate position, regarding the NB30 limit the maximum tolerable for networks, and the Norwegian limit suitable for the protection of radio services in most cases. Higher radiation levels than NB30 have never been considered by these specialised bodies.

- The standardisation bodies apparently cannot reach consensus on acceptable limits for telecommunications networks. More field tests are necessary to measure the practical impact of PLT on the users environment.

  The delegates expressed their fears for extensive field tests. Once deployed on a large scale, how could the systems be withdrawn if the tests proved detrimental?

- The incumbent telecommunication systems seem to have a policy against PLC. All chairmen in standardization bodies are from the telecoms.

  Remark: Radio users have denied this. PLC operators seem to have a general lack of knowledge in telecommunications (and lack of experience in standardization) and need the contribution of universities to define their technology.

- The American FCC regulations do not prohibit the putting on the market of PLT modems intended for indoor use. The deployment of these modems does not give rise to significant complaints. Why should it be otherwise in Europe? While Europe discusses about appropriate limits, taking into account the precautionary principle, our industry cannot compete.

  Remark: Mandate 313 will give "legal certainty" to network operators and the radio services fear that the HF spectrum will no longer be adequately protected. The FCC Nr 15 radiation limits may be more relaxed than the expected European regulations, but in case of interference to an authorized radio service FCC Nr 15 applications have to shut down. Therefore the U.S. way to exploit modern network operations, in spite of relaxed limits, procures certainty to radio services, not to networks. This motivates and justifies the resistance of the European radio users to the plans of the European Commission and to Mandate 313.

- In several countries where PLT is being tested complaints have been filed to the authorities. In case of a specific complaint for PLT interference, the national authorities can take special measures, referring to Article 6 of the Council Directive 89/336/EEC (EMC Directive) which states:

  The requirements of this Directive shall not prevent the application in any Member State of the following special measures:

(a) measures with regard to the taking into service and use of the apparatus taken for a specific site in order to overcome an existing or predicted electromagnetic compatibility problem;

The delegates observed that their national authorities would certainly take into account the complaints of security services, but doubted that they would respond to the requests of amateur radio operators or short waves broadcast listeners.

Remark: A national administration prohibiting the sale and operation of powerline equipment (like Austria), would get in conflict with the goals of the European Commission. Therefore Article 6 of the present (article 4 of the new) EMC Directive does not provide an appropriate solution. Accordingly to several sources (even in discussions at the "Stakeholders" meeting) this way should be reserved for exceptional cases and not be a tool to cure widespread problems.

Further paragraphs of article 6 state that such measures initiated by a national administration shall be reported to the Commission (which will inform all the member states if the measures taken by the member state are regarded justified).

- PLT technology evolves rapidly, with growing efficiency. Accordingly to its promotors, its predictable lifetime will be limited (10 years?). Meanwhile, cleaner digital communications will be developped. Moreover, PLT deployment will be an "overlooked roll out".

  Remark: this statement authorises the HF users to call the authorities for participation to the control of PLT deployment in the field.

  Furthermore, experience in standardization has shown that it is very difficult, if not impossible, to tighten limits again after a certain time of relaxation. Therefore radio services should not trust this statement unless we receive it in a written form of legal certainty. In any way the US FCC Nr 15 regulation will grant more reliable protection to radio services.

- In industrial areas as well as in modern offices with high computers density, HF communications and broadcast are already hampered. It is not proven that PLT would cause any significant additional interference.

  The delegates offered to demonstrate that PLT interference is many times more detrimental.

4. Conclusion

By accepting to meet an amateur radio delegation, the European Commission proved to be aware of our concern. On the other hand, we now have a clear understanding of the Commission's position.

Further arguments can still be developped, such as a documented presentation of the evolving PLT situation in the USA.

Moreover, we could also initiate a discussion on ways to negociate the least detrimental solution.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annexes: 2

The impact of Powerline and VDSL on the Amateur Radio Service

Source: DARC

In 1999, when the German and the British administrations introduced their first limits to regulate network radiation (NB30 and the MPT1570), radio amateurs needed some time to come to terms with understanding how these limits might affect reception on the amateur bands.

Orientation Phase

In 2000 the Vick study, contracted by German RegTP to the EMC Institute of the University of Dresden, was published and revealed what fieldstrengths were to be expected when PLC was operated using a power spectrum density (PSD) of -40 dBm/Hz, a level proposed early on but still maintained. A questionnaire on PLC issued by German RegTP confirmed that fieldstrengths up to 80 dB(uV/m) would, in fact, be generated.

In August 2000, in order to give an overview of how these limits would fit into the electromagnetic spectrum DARC produced Figure 1 below from the available data. The upper radiation limits for PLC were taken from a diagram in the Vick study.

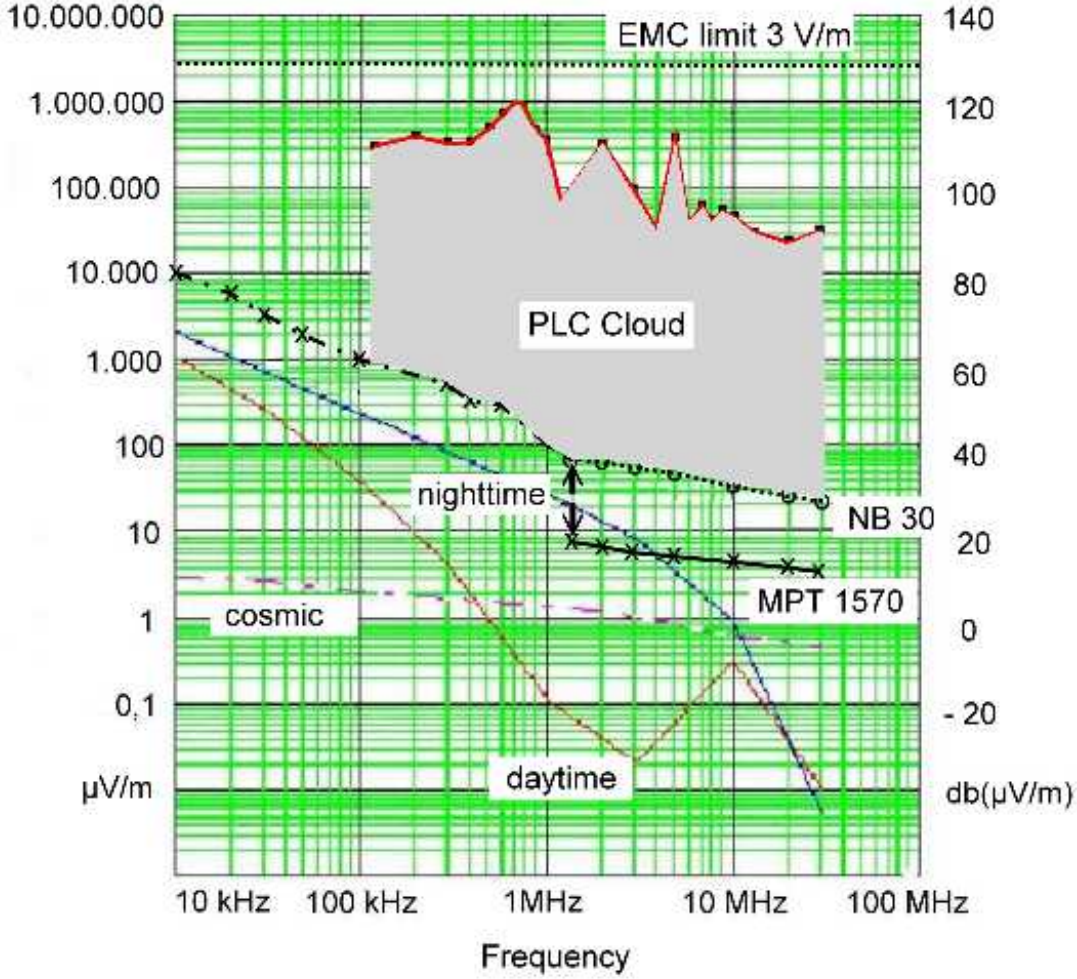


Figure 1: Electromagnetic Spectrum showing natural noise levels, NB30 and MPT1570 of 1999, and the PLC level range expected

The peaks in PLC radiation are due to the structure of a typical mains network which unavoidably contains resonant sections at specific frequencies, resulting in optimum radiation. It became apparent that power line radiation has the potential of filling most of the level range below the EMC limit for electrical equipment (3 V/m) down to the lower levels used for radio communication. All radio signals would be masked by interference from PLC. It can also be calculated that the operating range of a typical 100 W HF radio amateur transmitter will be reduced to 10 kilometers or less; at larger distances the signal-to-noise ratio will deteriorate and finally its fieldstrength will fall below the interfering fieldstrength generated by power line radiation.

Even the NB30 limit would mean a dynamic range loss for radio services of about 30 dB. Broadcasters feel endangered too; for the HF range, they claim a minimum necessary fieldstrength of 40 dB(uV/m) and a signal-to-noise ratio of at least 30 dB so that any emission limit above 10 dB(uV/m) would affect even this powerful radio service.

Therefore it has been the position of radio users from the beginning of discussions on this limit, that the old MPT1570 (now de facto replaced by the Norwegian proposal) would be the absolute maximum that radio services were willing to concede, otherwise:

their receivers could no longer be operated as intended!

Amateur radio receivers are designed to copy radio signals down to the noise level but HF power line emissions will cover their whole sensitivity range!

A Model for Fieldstrength to Antenna Output Power

In order to eliminate any guess-work as to how high the interfering receiver input signals would be in relation to the various fieldstrength limits proposed for networks, DARC has developed a calculation model.

German EMF Standard DIN VDE 0848 Part 1 contains a formula suitable to determine what power will be delivered by a half-wave antenna (typical for radio amateurs) immersed in a given fieldstrength:

$$Pmax = Aw*E^2/Zo$$

Pmax = maximum deliverable power from the antenna
$Aw = 0.1305\lambda^2$ square meters, λ in meters
E = electric fieldstrength in V/m

Using this formula, a small Basic programme has been written, allowing the incorporation of various correction factors to deal with different bandwidths, distances, peak-to-average ratios etc to determine what signal strengths radio amateurs can expect at their receivers according to any fieldstrength limit proposed. This model was first presented as part of the work of CEPT SE35, it is also in line with practical receiver experience. Its uncertaincies are not regarded as higher than those within the present procedures used to measure radiated fieldstrengths.

JWG Questionnaire

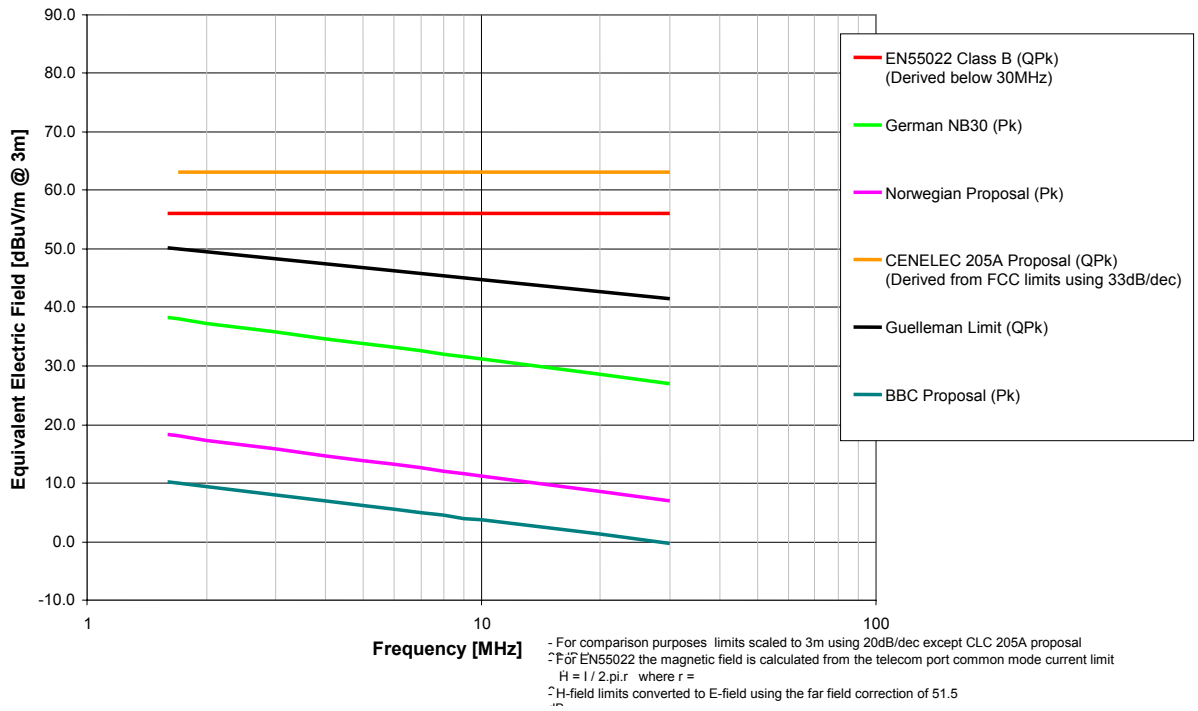


Fig. 2: Target limits in the frequency range 1.6 - 30 MHz

These limits remain the result of work within CEPT, SE35 and the JWG. Each of them has its own reasoning, but in reality they show that European standardisation

has been unable to achieve true coexistence between networks of any kind and radio services. These limits, as well as the ITU-R defined noise levels, have been applied to the calculation model. The resulting interfering receiver input signal levels are shown in Table 1, valid for a distance of 10m between antenna and interfering source.

The BBC and the Guellemann proposals have been omitted, as they have never been supported by CEPT SE or any administration. The receiver input levels are given in either uV or mV, dBm or radio amateur "S" units, whichever will be more familiar to the reader.

Amateur radio communication becomes severely degraded if an interfering signal approaches the "S9" level (characterising a strong signal). As can be seen from the table, this is already likely to happen under the NB30 regime but becomes excessive in case of VDSL and PLC radiation.

Table 1: Calculated receiver input levels

MHz	1.8	3.6	7	14	21	28	corrections
ITU-R business environment	-70 dBm	-79 dBm	-87 dBm	-95 dBm	-100 dBm	-103 dBm	-5.56 dB for bandwidth 9 kHz to 2.5 kHz
	68 uV	26 uV	10 uV	4 uV	2.3 uV	1.5 uV	
	S9+3	S8	S6.7	S5.3	S4.5	S4	
ITU-R residential environment	-75 dBm	-83 dBm	-91 dBm	-99 dBm	-104 dBm	-108 dBm	
	41 uV	16 uV	6.3 uV	2.4 uV	1.4 uV	0.93 uV	
	S8.7	S7.3	S6	S4.6	S3.8	S3.2	
ITU-R rural environment	-80 dBm	-88 dBm	-96 dBm	-105 dBm	-110 dBm	-113 dBm	
	23 uV	8.6 uV	3.4 uV	1.3 uV	0.75 uV	0.5 uV	
	S7.8	S6.5	S5	S3.7	S3	S2.3	
ITU-R quiet rural environment	-94 dBm	-102 dBm	-111 dBm	-119 dBm	-124 dB-	-128 dbm	
	4.6 uV	1.7 uV	0.66 uV	0.24 uV	0.14 uV	0.09 uV	
	S5.5	S4	S2.7	S1.3	S>1	S>1	
Norwegian proposal	-81 dBm	-90 dBm	-98 dBm	-107 dBm	-112 dBm	-116 dBm	-5.56 dB for bandwidth 9 kHz to 2.5 kHz plus -10.46 dB for 3 meters to 10 meters plus -3 dB peak to average
	19 uV	7.0 uV	2.7 uV	0.99 uV	0.55 uV	0.37 uV	
	S7.6	S6.2	S4.8	S3.3	S2.5	S1.9	
NB30	-61 dBm	-70 dBm	-78 dBm	-87 dBm	-92 dBm	-96 dBm	
	190 uV	70 uV	27 uV	9.9 uV	5.5 uV	3.7 uV	
	S9+12 dB	S9+3 dB	S8.1	S6.7	S5.8	S5.2	
EN55022	-43 dBm	-49 dBm	-55 dBm	-61 dBm	-64 dBm	-67 dBm	
	1,55 mV	774 uV	398 uV	199 uV	133 uV	99 uV	
56 dB(uV/m)	S9+30 dB	S9+24 dB	S9 +18 dB	S9+12 dB	S9+8.5 dB	S9+6 dB	
PLC	-36 dBm	-42 dBm	-48 dBm	-54 dBm	-57 dBm	-60 dBm	
	3.46 mV	1.73 mV	890 uV	446 uV	297 uV	223 uV	
63 dB(uV/m)	S9+37 dB	S9+31 dB	S9+25 dB	S9+19 dB	S9+15 dB	S9+13 dB	

Why no complaints?

According to latest reports there are more than 3 million ADSL users in Germany, and 6000 PLC customers. The ADSL spectrum ends at 1.1 MHz (de facto buried under the radiation of powerful broadcast stations). Even radio amateurs being ADSL users themselves have not reported any interference from ADSL. In Germany, however, STP (sreeened twisted pair) cables are recommended for in-house ADSL installations. In an SE35 document, British Telecom has given a fieldstrength for VSDL of 30 dB(uV/m) measured at 1 m from a drop wire. This would generate a moderately strong signal in an amateur radio antenna at a distance of 10 meters.

In spite of 6000 PLC customers, DARC has knowledge of just two cases of PLC interference; one of them is no longer relevant because the network operator Oneline has left the PLC business. The other case is a radio amateur who is also a PLC customer, claiming that when using power line he does not operate radio and vice versa, therefore he does not want to complain about any interference.

On the other hand it must be known that the only PLC system which has survived so far in Germany, the MainNet system, employs spread spectrum. In the idle state this system generates peaks sounding like an irregular noise caused by a bad or unstable contact, and

when data are transferred, these peaks combine to become a sort of cloud of white noise, masking any radio signal. Therefore the average HF radio listener may assume the radio signal to have disappeared by fading and will assume bad radio propagation, but not PLC interference.

Loss of ethics?

This last chapter may be the only one to be regarded as emotional. Soon after the beginning of the radio era an agreement was found necessary: All radio transmitter manufacturers had to employ filters to suppress unwanted emissions and so maintain a clean spectrum for other radio services; the electrical equipment industry had to apply filters to all equipment having the potential of radiation via the connected cables.

This still works sufficiently well (with the exception of PLC and future VDSL networks), within the standards and ITU Radio Regulations:

Radio Regulations S15.12 §8

"Administrations shall take all practicable and necessary steps to ensure that the operation of electrical apparatus or installations of any kind, including power and telecommunication distribution networks, . . . does not cause harmful interference to a radiocommunication service and, in particular, to the radionavigation or any safety service operating in accordance with the provisions of these regulations."

Radio Regulations S4.11:

"Member states recognise that among frequencies which have long-distance propagation characteristics, those in

the bands between 5 MHz and 30 MHz are particularly useful for long-distance communications; they agree to make every possible effort to reserve these bands for such communications . . ."

As a consequence no radio service needed to be a member of a standardizing committee (except in ITU), this task has been performed effectively by the relevant industry in cooperation with administrations.

Deregulation in telecommunication has changed this situation completely. At least some ITU members are no longer willing to protect the radio spectrum, in spite of renewing their Telecommunication Treaty with ITU. Radio users are still in a minority within the standardisation bodies. Network operators want to employ their networks as they are, regarding cable radiation as an unchangeable characteristic. Nobody has publicly asked the Norwegian representative in the JWG how this country will manage VDSL under its low level limit. The answer, given in a private conversation, is simple: All telephone cables leaving the ground have to be shielded (CISPR chairman Peter Kerry has agreed in a private conversation that this would probably work). This would give the radio sector enormous relief and achieve the coexistence needed between VDSL and radio services.

Of course this would be no solution for power lines. Therefore Powerline Communication will remain

incompatible with radio services. PLC operation also depends on the mains filtering provided by industry, for protection of its own signals. But when radio services have given up in the HF range because of excessive interference and lack of support, industry may regard filtering of electrical equipment no longer necessary. This will also be the end for Powerline Communications, because of increased mains interference. With the exception of fibre and coaxial cables, the only cable to survive in such a harsh world without any ethics will be the twisted pair cable.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

30.04.2003

Power Line Technology - Meeting Report

1. HF users meet European Commission representative in Hilversum

March 3rd 2003 a meeting was convened by the World Broadcast of Radio Nederland in Hilversum. Mark Bogers, EC Directorate Industry, accepted to meet a group of HF users to discuss the PLT issue.

2. Presentations

- Nozema, the concern that runs all broadcast transmitters in The Netherlands, said that Medium Waves will also go DRM (Digital Radio Mondiale). According to ITU GE75, broadcasters shall guarantee 60 dBµV above the noise level in the targeted reception area.

  Why continue putting lots of money in MW broadcasting when PLT can considerably rise the noise level?

- Mark Bogers presented the views of the EC on PLT:
  - PLT is a temporary technology (10-15 years)
  - ADSL is already running 3Mbit in Belgium without complaints
  - PLT is interesting for many European regions with only (limited) phone and no Cable TV
  - fiberglass is too expensive for the local loop
  - the USA are more progressive; European manufacturers are hampered by excessive regulation
  - the European industry has no legal certainty to deploy PLT
  - the EC has yet no spectrum policy, decisions are taken at the national level
  - eEurope 2002 Action PLan decided to develop telecommunications in Europe
  - incumbents maintain their protected position
  - competition increases with distance, but the local loop remains the privilege of the incumbents: "unbundling the local loop" doesn't work
  - the standardisation process (Mandate 313) does not make progress
  - at the "Stakeholders" meeting (see EUROCOM Newsletter of 02.02.2003) it became clear that cumulative effects cannot be shown; the main problem is local interference
  - it is needed to compare cumulative effects of all kinds of sources with PLT

- Astron, radioastronomy, presented their huge scale LOFAR interferometer under construction in The Netherlands and supported by EC funding. PLT will ruin the experiment if deployed elsewhere in Europe, because of the expected skywave.

- NEDAP (Koos Fockens) presented a technical comparison between PLT and xDSL

- The Ministry of Defense (Hans Blondeel) said HF is again promoted by the army. They had no collaboration by NUON which runs the PLT trial in Arnhem and refused to shut it off for comparative measurements. They did simulations in the field: measuring the noise level in a normal town and comparing it with the noise level out of town. In the vicinity of PLT, noise is 20 dB higher than normal city noise. Military command posts are barred in the vicinity of PLT.

- A live demonstration of inhouse PLT was given: 2 modems with 30 dB notches on the amateur bands, one indoor, one in the garden. A spectrum analyser showed the normal noise inside the building and compared it with the additional noise produced when PLT modems were switched on. The detrimental effect of PLT on broadcast reception, inhouse and in the garden,

was shown with a simple battery powered handheld receiver as well as with a standard army set.
Jan Jansen (EMC Manager VERON) had measured the modems and found them not complying with EN50022. Mark Bogers asked for a copy of the modems documentation. He said 100 to 150 products are withdrawn from the EU market every year because of faulty EC markings.

3. PLT large scale trials

Mark Bogers said large scale trials are necessary since the CENELEC/ETSI Joint Working Group does not seem to be able to produce a networks standard.

The participants objected that, if the trials proved detrimental, it would be difficult to redress the situation.

If large scale trials were decided, the HF Users Group proposed to agree upon the following ground rules in order to assure a proper evaluation of the impact of the PLT systems on HF communications:

- The measurements need to be made on a consistent basis
- The location and the duration of the trials need to be made public
- PLT interference being difficult to identify by outsiders, wherever trials are to be held, local people need to know how to identify and report cases of interference
- Launch powers need to be consistent
- Traffic levels need to be broadly comparable
- Systems using the same technology need to be compared (it is not valid to treat a "notched" system in the same way as a spread-spectrum one)
- There needs to be a commitment to make the results public; the whole programme of trials needs to be transparent
- The trial locations need to be representative of a typical suburban environment.

Mark Bogers said that this should be discussed with the PLT people.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter

13.01.2002

EMF Regulation in Belgium

1. European Council Recommendation and Belgian law

In our EUROCOM Newsletter (News0700.rtf), dated 11.07.2000, we reported on the *Council Recommendation on the exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).*

This Recommendation endorses the radiation exposure limits given by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and approved by the Commission's Scientific Steering Committee.

The Belgian federal government has released a Royal Decree on *Antennas radiating electromagnetic waves ranging from 10 MHz to 10 GHz.* A translation in English of the main articles of this decree is appended (see Annex).

2. Comments on the Belgian decree

In the recital introducing the decree, it is stated that, in Belgium, the main concern of the general public about the potential health hazard of EMF is related to GSM antennas.

The position adopted by the Belgian federal government takes into account the directives given by the International Commission on Non Ionizing Radiation Protection (ICNIRP) and adopted by the World Health Organization (WHO). These directives are derived from the observed effects on bodily tissues exposed to a microwave energy of 4 W/kg (although these effects are not necessarily noxious). For workers, the ICNIRP recommends a security margin limiting the exposition by a factor 10 (0.4 W/kg), and for the general population by a factor 50 (0.08 W/kg).

In compliance with the precautionary principle, the Belgian decree introduces **a security margin of 200**, limiting the exposure for the general public to (4/200=) 0.02 W/kg. In the 900 MHz GSM region, this corresponds to an electromagnetic fieldstrength of (0.686 √900 =) 20.6 V/m.

3. Amateur Radio antennas

The decree covers all transmitting antennas radiating electromagnetic energy in the 10 MHz - 10GHz frequency range. Antennes used by amateur radio operators in this frequency range are also concerned.

John Devoldere, ON4UN has developed an Excel spreadsheet to facilitate the required calculations. This spreadsheet takes into account the losses in the transmission line from the transmitter to the antenna, the correction factors for the various transmission modes and for the mean transmission time per 6 minutes periods as well as the vertical gain characteristics of a wide variety of antennas. Taking into account the height of the antenna from the ground, the sheet generates diagrams showing at what distance from the antenna the radiation limits are exceeded in the vertical plane. One diagram shows the limits compliant to the total SAR (0.02 W/kg) and the other diagram shows the limits for the proper antenna SAR (0.001 W/kg). Thus, worst case evaluation, as required by the decree, can easily be done.

For existing antennas, compliance with the decree has to be proven before December 31th, 2006. For frequencies other than in the 10 MHz - 10GHz range, European and international recommendations are applicable.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex: 1

Antennas radiating electromagnetic waves ranging from 10MHz to 10GHz

Belgian Royal Decree April 29th, 2001 modified by Royal Decree of December 21th, 2001

(Translated by Gaston Bertels, ON4WF)

CHAPTER I - Terminology

Article 1. Definitions applicable to this decree:

1° SAR (Specific Absorption Rate) : rate of absorption of electromagnetic energy per mass unit of bodily tissue. This rate is expressed in watt per kilogram (W/kg);

2° Power density : quantity appropriate for expressing the effects of microwaves, where penetration in the body is low. Quotient of incident radiated power, perpendicular to a surface, by the area of that surface. Expressed in watt per square meter (W/m^2);

3° Exposure norm : maximum tolerated exposure level;

4° Transmitting antenna : mast, pylon or emission site, located in a separate area or inside or on top of a building, including the affixed arials;

5° Emission power : maximum global power effectively radiated by all the radiation sources on the transmitting antenna;

6° Security zone : area surrounding the transmitting antenna not accessible to the general public.

7° Mobile antenna : portable or easily movable antenna or antenna erected for exceptional reasons to satisfy temporary needs (maximum two weeks);

8° proper antenna SAR : specific absorption rate, at a given location, due to the radiation field of the antenna under consideration;

9° total SAR : specific absorption rate at a given location, due to the radiation field of all the antennas creating an electromagnetic field in that location;

10° antenna : individual antenna or closely grouped antennas of the same owner, covering the same geographical area and used for providing the same service.

CHAPTER II - Definition of the exposure norm

Article 2. For each transmitting antenna, the emission power shall be limited to the minimum compatible with a quality service.

Outside of the security zone, the mean SAR of electromagnetic radiations over the whole body shall not exceed 0.02 W/kg (average during any 6 minutes period).

This amounts to :

Frequency	Power density W/m^2	Electromagnetic fieldstrength V/m
10 MHz - 400 MHz	0.5	13.7
400 MHz - 2 GHz	f/800	0.686 √f
2 GHz - 10 GHz	2.5	30.7

f (frequency) in MHz

In the case of composite fields, the electromagnetic fieldstrength shall be limited to :

$$\sum_{10MHz}^{10GHz} \left(\frac{E_i}{E_{iref}} \right)^2 \leq 1$$

Where E_i is the electromagnetic fieldstrength at the frequency i and E_{iref} is the reference level of the electrical fieldstrength as given in the table.

Except for mobile antennas, the owner shall, before the antenna comes into use, complete a technical file as per instructions of the BIPT, comprising :

- the data of the applicant;
- the technical data concerning the antenna, needed to determine the proper SAR in areas outside of the security zone where people are likely to be present;
- The owner shall calculate the resulting proper SAR of the antenna considered. The technical file shall include a horizontal projection plan of the area where the proper SAR due to the antenna can exceed 0.001 W/kg, showing landscape and buildings characteristics;
- a vertical projection showing the theoretical electromagnetic field strength for maximum power.

If the calculations done by the owner reveal that the proper SAR limit of 0,001 W/kg is not exceeded, the applicant can send the file to BIPT who will, without further investigation, approve the report and return it to the sender with a conformity certificate.

If however, the calculations done by the owner reveal that the proper SAR limit of 0,001W/kg is exceeded, the owner shall make a measurement in situ to determine the average total electromagnetic field resulting from all other transmitting antennas in the neighborhood. This residual level shall be combined with the field calculated for the antenna in question. Both the calculation of the new antenna and the measurement results of the residual level shall be included in the technical report to be sent to the BIPT. If the total combined level does not exceed a value equivalent to 0,02W/kg, the technical file will, after investigation, be approved by BIPT. The BIPT will eventually certify that the in alinea 3 given limits for combined fields will not be exceeded by the additional electromagnetic field of the antenna. The owner can use this conformity certificate with all competent authorities e.g. issuing building permits. (Text in italics is a comment on the legal text for better understanding of the procedures involved).

CHAPTER III - Measurements

Article 3. On the proposal of the Belgian Institute for Post and Telecommunications (BIPT), the Minister in charge of Telecommunications, taking into account the relevant European discussions, determines the measuring procedures and the number of measurements to be performed.

The BIPT performs the measurements in the field.

.....

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

15.03.2002

EBC 2002 Conference in Brussels

The European Cable Communications Association (ECCA), situated in Brussels, is the European trade association of European Cable Operators and their national association in Europe. The main goals of the association are:

- to foster co-operation between cable operators
- to promote and represent the interests of its members at both a European and International level.

ECCA convenes its 48th Annual Meeting in Brussels, 27 & 28 May, 2002. The conference is called "European Broadband Communications 2002" and will be based on the theme **Creating *e*Europe with Broadband cable".**

Over 360 members of the industry attended EBC 2001 in Lisbon. This year, an exclusive selection of high level decision makers, Members of the European Commission, Members of the European Parliament and business leaders as well as international media are expected to participate.

Among others, the following influential experts will make presentations:

- Mario Conti, European Commissioner responsible for Competition Policy
- Viviane Reding, European Commissioner responsible for Education and Culture
- Erkki Liikanen, European Commissioner responsible for Enterprise and the Information Society
- Patrick Leleu, President NOOS
- John Riordan, President & CEO UPC

Among the agenda items let us quote:

- Regulatory strategies for accelerating the roll-out of broadband services
- New and emerging broadband technologies
- How to ensure a flexible & harmonised regulatory environment that encourages innovation and transition?
- What role is to be played by the Commission, competition authorities and media regulators to ensure a level playing field between infrastructures?

In line with the overwhelming expansion of the telecommunication networks industry in Europe, ECCA has intensified lobbying the European institutions since the last few years.

EBC 2002 will be a brilliant convention.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

12.04.2002

2001 ACTIVITY REPORT

submitted to the IARU Region 1 Executive Committee

1. PLC

The European Commission hosted a Workshop on PLC in Brussels, March 5th, 2001.

EUROCOM was invited to present the views of the amateur radio service. Hilary Claytonsmith, G4JKS did the presentation and a paper was circulated to the participants.

At the end of the day, workshop chairman Mark Bogers (European Commission) concluded to the impossibility to reconcile the views of the spectrum users with those of the PLC promotors. He said the Commission could deliver a mandate to the European standardisation institutes to issue EMC standards for telecommunications networks.

Incidentally, this was done. CEN, CENELEC and ETSI accepted Mandate 313 and set up a Joint Working Group. This JWG is presently discussing the matter.

The ERC/CEPT SE35 task group also discussed telecommunications networks EMC issues.

EUROCOM actively circulated information and called for action, alerting significant spectrum users such as the military, air control, security services, HF broadcasters.

The battle for the preservation of the spectrum is going on.

2. Regulatory framework for electronic communications networks and services

Article 15 of proposal COM(2000)393 for a directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services stated that the Commission could cancel standards when considering *that they no longer meet customers needs or that they hamper the implementation of technological evolution*.

Considering the growing menace of spectrum pollution, we asked MEP Fernando Fernandez-Martin, EA8AK to file an amendment excepting official EMC standards of the process. This was done and the amendment was adopted by the ITRE Committee.

Finally, the Council adopted a Common Position stating in Article 16 on Standardisation that:
7. This article does not apply in respect of any of the essential requirements, interface specifications or harmonised standards to which the provisions of Directive 1999/5/EC apply.

Directive 1999/5/EC is the R&TTE Directive which refers to the EMC Directive. Thus it is confirmed, that deletion by the Commission is not meant for EMC standards published in the Official Journal of the European Communities.

3. Radio Spectrum Policy

The proposal COM(2000)407 for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community foresees the creation of a *Senior Official Radio Spectrum Policy Group*.

Article 3 states that *the Group shall consult, as it may deem appropriate, representatives from various sectors of activities affected by or requiring the use of radio spectrum in the Community and in the rest of Europe.*

We asked MEP Fernando Fernandez-Martin, EA8AK to submit an amendment, adding the following to article 3:

Representatives of the radio amateur service within article S1.56 and of the amateur-satellite service within article S1.57 of the International Telecommunications Union (ITU) radio regulations shall be consulted in any case.

This amendment was not adopted.

In second reading, the Council Common Position was amended in such a way, that radio spectrum policy proposals, submitted by the Commission, shall include information on the impact on existing spectrum users.

The Explanatory Statement suggested that the Commission should set up an informal expert group on radio spectrum matters to discuss all spectrum-related issues associated with the introduction of new Community policies which depend on radio spectrum.

4. Joint CPG EC Consultation Meeting in preparation of WRC-2003

The CEPT Conference Preparatory Group (CPG) and the European Commission (EC) have jointly held a consultation meeting in Brussels with industry and the interested public concerning the European preparations for the next World Radiocommunications Conference.

Amateur and amateur-satellite matters as well as the 7 MHz issues were briefly presented. There was no comment from the floor on these topics.

A second Consultation Meeting is envisaged to take place in January 2003.

5. EMF

Council Recommendation 1999/519/EC on the limitation of exposure of the general public to electromagnetic fields endorses the advice on this matter given by the International Commission on Non-Ionising Radiation Protection (ICNIRP).

The Belgian federal government has released a Royal Decree on *Antennas radiating electromagnetic waves ranging from 10 MHz to 10 GHz.*

In compliance with the precautionary principle, the Belgian decree introduces a security margin of 200, limiting the exposure for the general public to (4/200=) 0.02 W/kg. In the 900 MHz GSM region, this corresponds to an electromagnetic fieldstrength of (0.686.√900 =) 20.6 V/m.

In the frequency range 10 - 400 MHz, this results in a power density of 0.5 W/m^2, which corresponds to an electromagnetic fieldstrength of 13.7 V/m.

The Belgian decree thus increases the exposure limit by a factor 4.

For all new antennas a conformity attest is required. For existing antennas, compliance with the limit shall be proven before the end of 2006. This covers also amateur radio antennas.

The UBA has edited a spreadsheet for decree compliance calculations for a wide variety of antennas, taking into account the radiated power and worst case issues.

Members societies are invited to forward to the EUROCOM chairman information on national regulations for electromagnetic radiation exposure limits.

6. EUROCOM meeting

A joint EUROCOM - EMC meeting was held at Ham Radio 2001, Friedrichshafen June 30th, 2001.

19 delegates participated. IARU Region 1 President Lou van de Nadort, PAoLOU assisted to the meeting.

EUROCOM Chairman ON4WF presented an overview of recent developments in the EU Radio Spectrum Policy.

The main issue under discussion was to develop a common strategy against the introduction of Power Line Technology.

EMC Chairman OZ8CY presented an overview of the EMF (electromagnetic field exposure on humans) activities and briefed the meeting on Standardisation issues.

7. EUROCOM Newsletters

In the year 2001, 14 Newsletters were circulated, 5 with documents appended.

We appreciate DARC to publish the EUROCOM Newsletters on their "External Relations" webpage.

Moreover, the complete series of EUROCOM Newsletters, covering the working group's activity since it was created in 1990, is edited on CD by DARC's External Relations officer Hans Berg, DJ6TJ.

8. Thanks

Many thanks to MEP Fernando Fernandez-Martin, EA8AK who efficiently supported EUROCOM's action by submitting parliamentary amendments.

We are grateful to DARC for kindly hosting the EUROCOM - EMC meeting.

Many thanks to Hans Berg, DJ6TJ for publishing the EUROCOM Newsletters.

Respectfully submitted to the IARU Region1 Executive Committee

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

15.05.2002

PLT Symposium - Ham Radio 2002

1. Convening

The Power Line Telecommunications issue is far from settled.

Karl E.Voegele, DK9HU, Member of the IARU Region 1 Executive Committee and PLT Coordinator, is convening interested parties to a PLT Symposium.

DARC offered to host this meeting during the HAM RADIO convention to be held in Friedrichshafen, 28-30 June 2002.

The PLT Symposium is scheduled Saturday, June 29 at 10.00h in the Conference Room, administrative building, 1st floor.

2. Agenda

A provisional agenda has been drafted:

1. Opening and welcome (DK9HU)
2. To nominate a chairman to the meeting
3. To nominate a secretary to the meeting (minutes)
4. Reporting events since the 2001 meeting (ON4WF, OZ8CY, G4JKS, DJ1ZB, guests)
5. Debate on "How to go on handling the issue"
6. Action points
7. To close the meeting

3. On the importance to participate

Presently, PLT technologies, where implemented, considerably disturb HF communications.

Future cable telecommunications techniques (VDSL) are hardly less perturbing.

The European Commission has mandated CENELEC and ETSI to prepare harmonised standards for wired telecommunications, taking into account the EMC aspect.

The balance between the wired and the wireless HF communications is of crucial importance. Several HF services (life safety, military, air control, security...) are claiming protection. HF broadcasting and HF amateur radio are involved in a survival battle.

Tracing the ways to continue the struggle is the goal of the PLT Symposium.

We hope to see you.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter
20.05.2002

Telecommunications Regulatory Package
Directives promulgated

1. The regulatory package

EUROCOM Newsletter of 28.05.2001 reviewed a series of telecommunications regulatory proposals drafted by the European Commission.

EUROCOM Newsletters of 08.06.2001, 25.09.2001 and 28.11.2001 commented some of these proposals as well as amendments filed on behalf of the amateur radio service by MEP Fernando Fernández Martín, EA8AK.

The April 24, 2002 issue of the Official Journal of the European Communities published four Directives and one Decision of the European Parliament and of the Council constitutive of the Telecommunications Regulatory Package:

- DIRECTIVE 2002/19/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive)
- DIRECTIVE 2002/20/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive)
- DIRECTIVE 2002/21/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)
- DIRECTIVE 2002/22/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive)
- DECISION No 676/2002/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)

2. Authorisation Directive

This Directive covers authorisation of all electronic communications networks and services. Important is paragraph (5) of the introductory text:

> (5) This Directive only applies to the granting of rights to use radio frequencies where such use involves the provision of an electronic communications network or service, normally for remuneration. **The self-use of radio terminal equipment, based on the non-exclusive use of specific radio frequencies by a user and not related to an economic activity, such as use of a citizen's band by radio amateurs, does not consist of the provision of an electronic communications network or service and is therefore not covered by this Directive.** Such use is covered by the Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (i.e. the R&TTE Directive).

The Authorisation Directive is thus not applicable to the Amateur Radio service.

3. Framework Directive

This Directive establishes a harmonised framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services.

Item 6. of Article 17 on Standardisation states :

> Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services, or that they no longer meet consumers' needs or are hampering technological development, it shall, acting in accordance with the procedure referred to in Article 22(3), remove them from this list of standards and/or specifications referred to in paragraph 1.

In the course of the legislative process, MEP Fernando Fernández Martín (EA8AK) filed an amendment to make clear that Article 17 should not apply to harmonised EMC standards which protect spectrum users. Item 7. of Article 17 now states :

> This Article does not apply in respect of any of the essential requirements, interface specifications or harmonised standards to which the provisions of Directive 1999/5/EC apply (i.e. the R&TTE Directive).

4. Radio Spectrum Decision

Article 1 explains the aim and scope of this Decision of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community :

> The aim of this Decision is to establish a policy and legal framework in the Community in order to ensure the coordination of policy approaches and, where appropriate, harmonised conditions with regard to the availability and efficient use of the radio spectrum necessary for the establishment and functioning of the internal market in Community policy areas such as electronic communications, transport and research and development (R & D).

When the draft was discussed in the Parliament, MEP Fernando Fernández Martín filed an amendment suggesting that the amateur radio service representatives be consulted when radio spectrum matters are under consideration. This amendment was not accepted.

Article 3 of the Decision states :

> The Commission shall be assisted by a committee ("the Radio Spectrum Committee")

and in the preamble the following is said :

> Where committee procedures are used for the adoption of technical implementing measures, the Committee should also take into account the views of the industry and of all users involved, both commercial and non-commercial, as well as of other interested parties, on technological, market and regulatory developments which may affect the use of radio spectrum. Radio spectrum users should be free to provide all input they believe is necessary. The Committee may decide to hear representatives of radio spectrum user communities at its meetings where necessary to illustrate the situation in a particular sector.

Consequently, we will have to pay special attention to any development of the European Union's policy with a potential impact on the radio spectrum used by the amateur radio service.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter
21.06.2002

National regulations on EMF

TCAM is the permanent Telecommunication Conformity Assessment and Market Surveillance Committee created by the R&TTE Directive (1999/5/EC).

The 10th TCAM meeting, which was held 12 - 13 March 2002, reviewed the implementation of the Council Recommendation 1999/519/EC on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).

It was noted that "some Member States currently substantially deviate from the limits set in Council Recommendation 1999/519/EC, but are reconsidering their position".

Here is an abstract from the draft minutes of the TCAM meeting, related to the EMF regulations.

DRAFT MINUTES
OF THE TENTH MEETING OF
THE TCAM COMMITTEE
(ABSTRACT)

1. Mr. Bogers introduced the subject. The picture is that Member States in general follow the limits set in Council Recommendation 1999/519/EC. Although some Member States currently substantially deviate from these limits these are reconsidering their position. As regards the conformity assessment procedures the Commission observes that test procedures have been developed in Spain and France. Whilst national assessment procedures for installed base stations in a multi exposure situation are not covered by the R&TTE Directive he asserted that proportionality dictated that they should logically follow principles similar to those established by the Directive and that they therefore should be based on operator declarations. He asserted that such regulations are technical regulations in the sense of the 98/34/EC Directive and hence notifiable.

2. The chairman then proceeded to a round table.

3. The Belgian delegation indicating that their system was based on 2 royal decrees. They called for harmonisation of test procedures and called upon the Commission to put more effort in achieving that objective.

4. Denmark informed the meeting that, although their legislation foresaw the possibility for specific regulation their health authority hadn't found it necessary to invoke it.

5. Germany indicated that an ordinance on "Standortbescheinigung" under which each transmitter above 10 W EIRP would require permission for installation was planned for entering into force this summer. Permission will be given on compliance with an ordinance on EMF limits set by the Environment Ministry, on pacemaker limits set by a national standard, whereas also test methods are set in a national standard. Although they will notify these regulations, they considered this might not be necessary, as these regulations didn't affect the free movement of R&TTE compliant equipment but mainly would lead to safety distances.

6. Greece indicated that a Decision of 2000 was based on the Council Recommendation. The responsibility for implementing the Decision was with the Greek committee for atomic energy. Each antenna requires a license from the telecommunication regulator.

7. Spain informed the meeting that a royal decree had been adopted in September 2001. All mobile operators need to present a file asserting that antennas meet exposure limits. For critical exposure situations in areas with high population densities measurements may be necessary.

8. In France the decree implementing the Directive implements the SAR levels of the Council Recommendation. Operators have to declare compliance with the limits, whereas the Agence Nationale de Fréquences (ANFR) controls in-situ by means of a national measurement method.

9. Mr. Bogers recalled that the Commission and some Member States had issued a detailed opinion on draft French regulations obliging manufacturers to provide information on SAR levels for handsets.

10. Ireland recommended ICNIRP/WHO guidelines to be met.

11. Italy indicated there was a framework Directive. Implementing regulations are under discussion.

12. Luxembourg confirmed that a regulation setting limits below those of the Recommendation has been in force since 1/1/2001. Unfortunately this regulation hadn't been notified. New discussions on this matter are however ongoing.

13. The Netherlands informed about a voluntary agreement between the government and the operators. Operators commit to comply with the limits of the Council Recommendation. This agreement will be notified to the Commission.

14. Austria implemented the limits of the Council Recommendation. Additional labelling for handsets, as proposed by certain pressure groups, is in their view not useful, as there is anyhow a measurement uncertainty of 30%. They considered that exposure of the public is best limited by installing more base stations, thereby reducing the power levels of both handsets and base stations.

15. In Portugal the matter is covered by legislation implementing the R&TTE Directive and installation requirements for base stations, which are based on the ICNIRP values. A committee is currently studying the matter.

16. In Finland a ministerial decision from the health and safety ministry is planned to implement the Council recommendation limits. The radiation safety centre is studying the matter under an MoU with the telecommunication regulator but is not considering regulatory action at the moment as levels are already below the recommended limits. They noted that public concern on these matters in Finland is limited.

17. In Sweden the implementation of the Council Recommendation is the responsibility of the national radiation protection institute. They are expected to issue recommendations by early summer.

18. The UK reported about national studies on sites where there was public concern. These indicated that on average emission levels were factors 1000 to 100.000 below the ICNIRP values. Operators voluntarily committed to comply with the ICNIRP values.

19. ETNO welcomed the call by the Commission for proportionality in this area. One should not apply regulation on top of the Directive and the Council Recommendation to address concern of a badly informed public.

20. EICTA noted that some countries followed a rational path on this matter. They were however surprised by the divergence in regulatory attitude to this matter in the EU.

21. The Czech Republic indicating they had implemented the Council Recommendation limits and that harmonised standards for handsets had been implemented.

22. Mr. Bogers then summarised the discussion and called for proportionality and application of the Directive. Where there is a need to measure emissions of base stations, test methods should be those of harmonised standards and notably the in-situ standard, which is under development in CENELEC. He observed convergence towards the Council Recommendation limits. As regards the information requirements for hand sets he took the view, there is no need for new regulation as industry already committed to provide it.

23. Germany took the view that regulations on labelling were not compatible with the Directive. There is political pressure pushing for voluntary labelling for handsets, which have a low exposure. This might however conflict with single market principles, reason for which they aim at avoiding them.

24. Spain considered that it would be possible that consumer protection legislation would prescribe additional labelling. Such would be beyond telecommunication legislation.

25. France then clarified they were not considering additional labelling but an obligation on user information. Therefore it doesn't add requirements but is a precision of the information to be provided under article 6.3. As regards the definition of the SAR limits they apply article 7.2, the application if they view is not restrictive.

26. Finland then disagreed that article 6.3 could be used to impose such obligations as it didn't refer to health aspects.

27. Italy recalled that the Ad Hoc Group on essential requirements considered this matter. They called for all Member States to march in tune on this matter.

28. Mr. Bogers then summarised the debate. The Commission will continue arguing against initiatives steering away from the basic concepts of the Directive. Equipment complying with harmonised standards under the R&TTE Directive should be considered safe and there is no reason to qualify this further through user information. If Member States don't consider these standards appropriate they should challenge them. Since industry is already providing information on SAR levels, regulation on that issue is inappropriate.

29. Since the discussion wasn't conclusive the issue would be rediscussed at the next meeting.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

10.09.2002

PLT Symposium - 29th June 2002 - Friedrichshafen

Minutes by Peter Kirby, G0TWW

The Chairman, Karl Voegele DK9HU, welcoming those in attendance, opened the symposium; he stressed the importance of the meeting in view of the threat to amateur radio operation around the world. He stressed that the introduction of PLT was not a local issue confined to Europe, and that it was important that all spectrum users and organisations under threat from this technology, should combine their efforts in resisting its introduction, without adequate safeguards to the spectrum most at risk.

DK9HU then invited the Chairman of IARU Region 1, Lou Van de Nadort, PA0LOU to address the meeting.

Lou Van de Nadort, PA0LOU welcomed the visitors from outside of Region 1, particularly the representatives from ARRL and JARL. He remarked that the threat of PLT was one of many battles to be fought and won if the future well being of amateur radio operation is to be maintained. Amateurs in key positions within the ITU and the EU and from Societies across Europe were at present engaged in major discussions on what level of noise would be acceptable should PLT be introduced into the open market. He stressed the importance of maximum cooperation from all quarters and that is why meetings such as the symposium were so important. He wished the meeting well and hoped that the result would be the development of a joint strategy to combat the significant threat of PLT to the future of the Amateur Radio Service.

The Chairman addressing the meeting went through the various actions that had been taken since the last PLT meeting, which was held at Friedrichshafen one year ago. At that meeting an action plan had been drawn up. Some Societies had addressed the issue but others had not and this was a disappointment. He reported on the work within DARC. His appointment as the PLT coordinator for DARC and the publication of the DARC 'Strategy on PLT' which can be found on the DARC homepage. PLT trials in Germany had encountered some technical problems. In the trials to date no measurements taken have met the requirements of the NB30 standards. This was both encouraging from the viewpoint that PLT in its present form is not a commercially viable product but also worrying because political pressures to introduce the system may well enable the manufactures to introduce the technology paying no regard to the noise level standards set.

Dr-Ing Diethard Hansen, HB9CVQ Chairman ARTG WG PLC Reg TP Germany briefed the meeting on how manufacturers got the opening to develop PLT systems. This was brought about by the deregulation of the European Union utilities market. Was there a business case for PLT? HB9CVQ felt that it was doubtful. There are more competitive systems such as Lans and XDSL, which are more efficient. PLT would only be attractive if compatible. PLT technology is still premature and what does it have over its competitors? – nothing. On a business front continuing problems with the technology make it an unattractive business proposition due to delays and costs.

Following Dr Hansen's statement, the chairman loosely following the agenda invited Gaston Bertels, ON4WF to give a presentation on behalf of **Hilary Claytonsmith, G4JKS** who was unfortunately unable to attend the meeting because of a broken ankle.

Gaston Bertels, ON4WF set out what actions had been taken over the past year. He reported on the PLT workshop, which had been set up by the European Commission. G4JKS had given a presentation to the workshop, which was well received, however, as the audience on the day was around 90 percent in favour of PLT and 10 percent from the HF user group it is doubtful that the presentation had the desired effect. A new standards body had been set up by the EU. This is EC313

which is a joint body made up of members of Cenelec and ETSI. CEPT and other interested committees are not full members and can only input to the Cenelec/ETSI working group. Unfortunately within the EU not every national administration is a member of Cenelec. ETSI representation is a lot wider. Important decisions regarding a common noise level standard is expected to be taken in September/October this year and it is important that Societies continue the lobbying of national administrations and at governmental level.

The Chairman thanked Gaston and asked that representatives from other Societies to report the situation in their individual countries.

Switzerland

Discussions with the national administration are ongoing. Power Line Technology is not allowed to operate within Broadcasting or Amateur Radio spectrum allocations.

Norway

National Administration understands the problems and has come up with a Norwegian noise limit, which is better than NB30. NRRL are not happy but are not pushing at the present time.

Hungary

It is not anticipated that Power Line Technology will be introduced into West European Countries for some time.

Italy

ASCOM have ceased all existing trials and will be issuing a report in 6 months. ARI have the support of the Army against the introduction of PLT.

Poland

No further trials are being held in Poland

United Kingdom

The RSGB have been informed that new trials are due to take place in the West of Scotland. The RSGB are closely monitoring the situation.

Netherlands

Jan Jansen PA0JMG. EMC Manager, VERON. Reported on the one PLT trial to date being held in the Netherlands.

The trial is taking place in Arnhem and involves one hundred and fifty houses. The trial is being conducted by MAINNET. The trial involves 6 low voltage stations using NT modems transmitting on a frequency centred on 10KHz using a bandwidth of 14MHz. Modulation is direct sequence, spread spectrum time division multiple access.

At first the Netherlands administration and the company concerned were reluctant to provide information on the trial. After protests VERON representatives were allowed to participate and take their own measurements. This invitation was also extended to the military.

The trial commenced in October 2001 and was scheduled to run for six months. However, it is still running today. The power company involved NUON believes the technology to be economically feasible.

Issues: The modems being used for the trial do not have CE Markings. There are no in house Modems. PLT noise on the band is being reported as being S7 - S9.

VERON representatives continue to monitor the situation.

There being no further reports, the Chairman Karl Voegele, DK9HU thanked the reportee's for their input. At this point he invited inputs from the floor on the way forward.

Ha-Jo Brandt, DJ1ZB suggested that the lobbying of radio users in SE35 would be useful. The BBC is very proactive and adamant that PLT should not interfere with any radio service. The BBC had suggested a noise limit level 30db below the NB30 level. This was in line and slightly better than the Norwegian proposal which was 20db below NB30. The UK administration had proposed an even

lower limit but this was withdrawn after it was found that PLT could not operate within such parameters.

SE35 were originally going to make a decision in June of this year on a recommended level. However, they have decided not to make any decision at the present time. Their only recommendation is that the radio services should be protected.

He further went on to recommend, that, when lobbying groups should not mention NB30 but NB30 minus 10db for Safety of Life frequencies. Countries who are threatened by PLT should also lobby smaller countries that are members of SE35 who are not threatened by PLT to get them onside.

Angus Annan, MM1CCR, Chairman of the RSGB EMC Committee, spoke of the need to look at other dimensions to put pressure on administrations and governments. The British government is concerned about the rise in Internet crime and is keen to develop ways in which to control it. It is felt in some circles that PLT will be an easy route for even greater Internet crime, organised crime and an easy communications route to link terrorist groups. In the USA post Sept 11, the US administration is concerned about the security of the Utilities. Having wide Internet access to homes down power lines could become a security headache for the authorities. There are technical solutions but they will be costly to develop and produce.

Christian Verholt, OZ8CY Spoke of the need for Societies in countries threatened by PLT to form HF user groups as had been done in the UK. There was also a need to lobby Power Drive manufacturers whose equipment will have to be enhanced to cope with PLT technology. Standards in this area are long established. Any changes will be costly and manufacturers will not want to bear that cost in the current economic climate. Christian spoke of a whole host of legislation concerning equipment standards, noise level standards and many groups within the ITU and the EU who are involved in the debate. It is up to every one of us to keep aware of what is going on and to keep pressure up on our governments.

He reminded the meeting that the EMC directive article 6, gives authority to administrations to block any systems that cause interference to Safety of Life frequencies. Sky wave interference is an issue if PLT was to be introduced nationwide and across Europe. There is much misleading data being produced by PLT enthusiasts, this has to be challenged.

Ole Garpestad, LA2RR President of NRRL asked for clarification of what was happening in SE35, whom he knew where looking closely at PLT and in particular the noise level standard.

Gaston Bertels, ON4WF in response stated, that to date four administrations across the world had come up with different standards. The FCC (USA). Germany (NB30), Norway and the BBC (UK). SE35 may just come up with another limit. The problem was that the Joint Working Group was complaint driven and in such an arena it was difficult to provide a level playing field and to bring in harmonised legislation. EU officials are also aware of the need not to build barriers to trade.

Ha-Jo Brandt, DJ1ZB stated that Telecom operators using NB30 standards are lobbying to stop PLT development.

Christian Verholt, OZ8CY spoke of the need to handle the media with care. Wide band Internet access provided directly into homes is politically popular.

Peter Kirby, G0TWW, pointed out, that the technical arguments against PLT need to be proved. In most people's eyes PLT is a cheap option to get onto the Internet without the need to purchase an expensive PC. However, there is another argument to be explored. Homes will get Internet access whether they want it or not, there may well be a Human Rights issue to explore. Under the HR Act, people must have choice.

Paul Rinaldo, W4RI, ARRL Technical Director told the meeting not to rule out a direct political or legal challenge. ARRL challenged the US administration, the FCC on the legality of Low Power Devices operating in the amateur bands. This challenge was upheld.

Rod Stafford, W6ROD, International Liaison Officer ARRL advised the meeting that the ARRL had set up a website specifically to deal with PLT issues. This site is linked to the main ARRL website.

The Chairman asked if there were any more points to be raised. There being none, he reiterated the need to continue the fight against the introduction of PLT technology. The action points included in the 2001 Strategy paper still needed to be addressed. A number of Societies have acted, but many

have not. This is everyone's problem not just the Societies, in countries where PLT is being trialled. If PLT is introduced Europe wide, the noise levels at the lower end of the HF band will be so bad as to stop amateur radio operation in this part of the spectrum.

On closing the meeting he thanked everyone for attending and their inputs. He especially thanked Gaston Bertels, Christian Verholt and Hilary Claytonsmith for their hard work on behalf of the amateur community. They were to be warmly congratulated for the their efforts todate.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

19.09.2002

Update on PLT emission limits

CALL TO ALL IARU Region 1 SOCIETIES FOR IMMEDIATE ACTION

1. ETSI/CENELEC Joint Working Group (EC Mandate 313)

Hilary Claytonsmith, G4JKS reported on the ongoing activities related to the emission limits for wired telecommunications networks.

Work has been continuing in the SE35 Project Team of ECC to finalise the Report to SE and onwards to the ETSI/CENELEC Joint Working Group on PLT, DSL, Cable Communications (including Cable TV) LANs and their effect on radio services. IARU has been actively represented in these discussions.

September 3-4, 2002 discussions took place in the ETSI/CENELEC Joint Working Group on the setting of a generic standard for such systems, in advance of formally receiving the SE 35 Report. It has become clear that, in spite of the conclusions in SE35, the JWG plans to ask national standards organisations which emission limit they feel is most appropriate for this standard. The proposed limits range from NB30 + 30dB through NB30 to NB30 - 30dB.

One suggestion was to use the CISPR 22 Product standard. This however is not suitable for wired systems, and so CISPR is looking at amending this standard to clarify its application to PLT systems. This is documented in CISPR/I/44/CD (see Annex 1). Also attached is a graphical explanation to clarify what CISPR/I/44/CD means (see Annex 2).

There is a danger that this new modified proposed standard could be put forward as the way ahead for deciding the limit for PLT emissions. It would appear that this proposal gives a further +38 dB of permitted emissions above the already high CISPR mains port limits. It appears to suggest that the mains has a balance of over 30dB up to 30 MHz, which is strange when considering that the telecommunications industry does not claim more than 30 dB on the twisted pair at the top of the HF band !

This limit would be a very serious step indeed for radio services, making all the debate so far about NB30 quite irrelevant !

2. CISPR

CISPR is the acronym for *Comité International Special des Perturbations Radioélectriques*. CISPR is a specialised committee of the IEC, the *International Electrotechnical Commission*, with headquarters in Geneva.

An IEC member is called a National Committee and each NC represents its nation's electrotechnical interests in IEC management and standardization work. CISPR is guided by input from NCs.

3. ACTION 1

It is very important now that member societies of IARU Region 1 in Europe make strong representations to their NCs about the CISPR draft. Societies should make it clear that:

- the stated LCL (longitudinal conversion loss) for mains networks is unrealistic - a figure of about 12dB would be more reasonable
- there are serious concerns about the applicability of the method of measurement to mains networks, and also about the statistical conclusions drawn

- the limit for broadband emissions should be more than 20dB lower than the present limit (CISPR 22)
- the emission limit should be the same for both wanted and unwanted emission.

As it stands, the proposed CISPR draft would have very grave consequences for radio services, and would seriously impede existing radio communications systems.

National Societies should contact their NCs about the proposed modifications to CISPR22 and make the above points very forcibly. The core of a draft letter is attached (Annex 3).

4. ACTION 2

As a SEPARATE point the JWG has decided to put a Questionnaire to the NC's on the specification of limits for radiated disturbance emissions from telecommunications cables up to 30 MHz. The Questionnaire (which is being drafted in early October) will set out a range of possible limits, which vary over a 60dB range !

The two options which were originated by radio users are, of course, the two lowest ones. At the JWG meeting, there was some support for limiting the emissions at the German NB30 level for compliance, with a possible lower limit for conformance in cases of interference.

It is very important that **YOUR NC** be aware of the importance of a sensible limit for radio services, and that NB 30 represents the real maximum for any limit. It is probably unreasonable to expect that the BBC or Norwegian limits will be accepted as the compliance limit, but if we can influence NC's to draw the compliance limit at NB30, with a tighter limit in cases of interference, that will be a reasonable compromise.

National Societies should ask their NCs to vote, on receipt of the JWG Questionnaire, in favour of an absolute maximum of NB30 for compliance, and for a more stringent limit in cases of interference (i.e. the BBC or Norwegian limits). Again, the core of a draft letter is attached (Annex 4).

5. IEC National Committees

The updated list of all the IEC National Committees is available on the Internet.

Look to http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=e&wwwprog=membrs3.p

If the page doesn't show up, proceed as follows:

- click on <http://www.iec.ch/>.
- click on the button "About the IEC"
- go to the end of the page and click on the hyperlink "up-to-date list of all IEC NCs.

In addition to addressing your two letters to your national IEC committee, it would be a good idea to send a copy for information to the body responsible for dealing with interference complaints in your country.

Please act now.

This is an important issue in the battle for the preservation of the HF spectrum.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Annexes: 4

Annex 3

DRAFT LETTER FOR ACTION 1

To [name of national standards organisation]

Subject: CISPR/I/44/CD – Amendment to CISPR 22: Clarification of its application to telecommunications systems on the method of disturbance measurement at ports used for PLC (Power Line Communication)

Dear Sirs,

We are very concerned at the implications of the above draft amendment, and wish to make our views known about some of the technical assumptions in the current draft. This is a matter of the utmost importance for radio services in our country. To allow emissions from PLT telecommunications systems at the proposed levels would risk serious disruption to radio services (including Broadcast, safety of life services and civil aviation, as well as radio astronomy and amateur radio).

Our particular concerns about the technical aspects of the draft are:

- The stated LCL for mains networks is unrealistic – a figure of about 12dB would be more reasonable
- There are serious concerns about the applicability of the method of measurement to mains networks, and also about the statistical conclusions drawn
- The limit for broadband emissions should be more than 20dB lower than the present limit (CISPR 22)
- The emission limit should be the same for both wanted and unwanted emission

I hope you will be able to reflect our views in any input you will be making on the current draft document.

Yours faithfully (or as appropriate in each country)

Annex 4

DRAFT LETTER FOR ACTION 2

To [name of national standards organisation]

Subject: ETSI/CENELEC Joint Working Group Questionnaire on permissible radiated disturbance emissions from telecommunications networks

Dear Sirs,

We understand that you will shortly be receiving a Questionnaire from the ETSI/CENELEC Joint Working Group on emissions from telecommunications cables, with a request to express your views on the appropriate emission limit for such systems.

The setting of an appropriate limit is a matter of great importance to radio services in our country. As you may be aware the SE35 Project Team of the ECC has been considering the question of emission limits which would adequately protect radio services, and has determined that the German emission limit ("NB30") is probably the best way forward. However, the SE35 Report states:

The NB30 limit, ……. "*constitutes a regulatory compromise, putting great constraints on radio services and users; however, it is predicted that there will still be numerous cases of interference to be resolved. The radio community is not able to go beyond this maximum tolerable radiation limit*"

You should be aware that the JWG has set out a range of limits, of which three would allow emissions at levels very considerably higher than NB30. To allow emissions at these high levels would risk serious interruption of radio services (including Broadcast, safety of life services and civil aviation, as well as radio astronomy and amateur radio).

I hope that your response to the JWG Questionnaire will reflect the interests of radio users, so enabling these services to continue to "operate as intended" (as the EMC Directive requires). In our view this requires a limit for compliance no higher than the NB30 level, and in cases of complaints, a lower limit more toward the Norwegian or BBC proposed limits.

Yours faithfully (or as appropriate in each country)

CISPR/I/44/CD

COMMITTEE DRAFT (CD)

IEC/TC or SC: CISPR/I	Project number CISPR 22 Amd.2 f9 Ed.3	
Title of TC/SC: EMC of Information technology, multimedia equipment and receivers	Date of circulation **2002-07-12**	Closing date for comments **2002-10-18**
Also of interest to the following committees CISPR/A, CISPR/H	Supersedes document CISPR/G/218/CDV, CISPR/I/1/INF CISPR/I/26/DC, CISPR/I/33/INF	
Functions concerned: ☐ Safety ☒ EMC	☐ Environment ☐ Quality assurance	
Secretary: Kenji Okazaki, Japan	THIS DOCUMENT IS STILL UNDER STUDY AND SUBJECT TO CHANGE. IT SHOULD NOT BE USED FOR REFERENCE PURPOSES. RECIPIENTS OF THIS DOCUMENT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.	

Title:
Amendment to CISPR 22: Clarification of its application to telecommunication system on the method of disturbance measurement at ports used for PLC (Power Line Communication)
(Titre) :

Introductory note
In CISPR 22, conducted disturbances of ITE are measured at the mains port and at the telecom port. PLC modems however use one port only for both purposes (mains power supply and telecom). This leads to the definition of the **Multi Purpose Port**[1] for PLC.

The current document is based on the principle that PLC equipment is required to meet the same radio protection limits as any other wire bound communication system. The interference potential at the multi purpose port is thus measured twice:

1) in its function as a power consumer (i.e. communication function disabled) using the familiar V-network and limits in tables 1 and 2 of CISPR 22 and;
2) in its function as telecom device using the T-network specified within this document and applying the limits in tables 3 and 4 of CISPR 22.

National committees are advised that this application of separate limits for the different functions is a new approach in CISPR/I and are asked to comment on this approach.

The test methods proposed are based on the principle that:

- A consumer appliance power supply is an unsymmetrical source of disturbance in which case a V-network (AMN) is suited to determine the interference potential.
- In contrast a telecom device is engineered to be a symmetrical source where the common mode signal, which is the cause for radiation, is much smaller than the differential mode signal. A T-ISN is suited to measure the common mode voltage, accounting for the conversion of differential to common mode due to a defined unbalance (LCL) representative of the appropriate network performance.

National committees are advised that this document includes some specific test methods and CISPR/I is looking for guidance as whether this work (which is specific to PLC) should be transferred to CISPR/A.

A Task Force of CISPR/I/ WG3 is mandated to determine the LCL function suitable for low voltage power distribution networks.

This CD is based on CISPR/I/33/INF (compilation of comments on CISPR/I/26/DC) and decisions at the CISPR/I WG3 meeting held on 27 - 28 June 2002 in Red Bank.

[1] not defined in CISPR 22:1997 but defined in this CD

Amendment to CISPR 22: Clarification of its application to telecommunication system on the method of disturbance measurement at ports used for PLC

Change the following paragraphs as follows (changes/additions underlined):

Add new paragraph 3.7 to read as follows
3.7 Multi Purpose Port
A port, connecting to low voltage distribution networks supporting data transfer and telecommunications, which combines the functions of the telecommunication port and the mains port.

Change paragraph 5 to read as follows:
5 Limits for conducted disturbance at mains ports, multi purpose ports and telecommunication ports

The equipment under test (EUT) shall meet the limits in tables 1 and 3 or 2 and 4, as applicable. Multi purpose ports have to be measured twice:

a) with the communication functions inactive using an AMN in conjunction with the limits of tables 1 or 2 and
b) with the communication functions active using a T-ISN in conjunction with the limits of tables 3 or 4.

Meeting the limits shall include the average limit and the quasi-peak limit when using, respectively, an average detector receiver and quasi-peak detector receiver and measured in accordance with the methods described in clause 9. Either the voltage limits or the current limits in table 3 or 4, as applicable, shall be met except for the measurement method of C.1.3 where both limits shall be met. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.
If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading, which shall be ignored.

Change Headline of paragraph 5.1 to read as follows:
Limits of disturbance voltage of mains terminals and multi purpose ports with communication functions inactive.

Change Headline of table 1, paragraph 5.1 to read as follows:
Table 1 – Limits for conducted disturbance at the mains ports and at multi purpose ports with communication functions inactive of class A ITE.

Change Headline of table 2, paragraph 5.1 to read as follows:
Table 2 – Limits for conducted disturbance at the mains ports and at multi purpose ports with communication functions inactive of class B ITE.

Change Headline of paragraph 5.2 to read as follows:
5.2 Limits of conducted common mode (asymmetric mode) disturbance at telecommunication ports and multi purpose ports with communications functions active.

Change Headline of table 3, paragraph 5.2 to read as follows:
Table 3 – Limits of conducted common mode (asymmetric mode) disturbance at telecommunication ports and multi purpose ports with communications functions active in the frequency range 0,15 MHz to 30 MHz for class A equipment.

Change Headline of table 4, paragraph 5.2 to read as follows:
Table 4 – Limits of conducted common mode (asymmetric mode) disturbance at telecommunication ports and multi purpose ports with communications functions active in the frequency range 0,15 MHz to 30 MHz for class B equipment.

Change Headline of paragraph 9 to read as follows:
9 Method of measurement of conducted disturbance at mains ports, multi purpose ports and telecommunication ports

Change the last sentence of 9.4 to read as follows:

A telecommunication port or a multi purpose port is connected by its signal cable to a T-ISN

Change the headline and the first paragraph of 9.5 to read as follows:
9.5 Measurement of disturbances at telecommunication ports and multi purpose ports

The purpose of these tests is to measure the common mode disturbance emitted at the telecommunication ports and multi purpose ports of an EUT.

Change the last sentence of paragraph 9.5.1.1 to read as follows:
9.5.1.1 Alternative 1
...
In cases of dispute the method of conformance in 9.5.1.2 takes precedence for telecommunication ports intended to be connected to category 3 and category 5 cables (see ISO/IEC 11801) or for multi purpose ports connected to low voltage distribution networks.

Add to paragraph 9.5.1.2 following the last sentence:
9.5.1.2 Alternative 2
...
For multi purpose ports intended to be connected to low voltage distribution networks the measurement is made using a T-ISN with an LCL as defined in c) 4) of 9.5.2.

Add to paragraph 9.5.2 an option c)4) to specify a T-shaped ISN for PLC equipment:
9.5.2 Impedance stabilisation network (ISN)
...
c)4) T-ISN for method of conformance alternative 2, multi purpose ports for low voltage distribution networks

The longitudinal conversion loss (LCL) shall be:

- 150 kHz to 30 MHz: 36 dB +/- 3dB

Change the headline of 9.5.3 to read as follows:
9.5.3 Measurement at telecommunication ports and multi purpose ports

Add a new paragraph 9.5.3.6:
Measurement at multi purpose ports intended for connection to low voltage distribution networks

The measurement method of C.1.5 shall be used.

Contributions of AE equipment to the measured levels of EUT mains disturbances shall be minimised. Therefore, PLT terminal adapter or PLC network simulator transmissions shall be adjusted to the minimum levels necessary to exercise the normal PLT transmission functions of the EUT. Bonding to the metal reference plane, or insulation from it, shall duplicate normal usage.
EUT mains supply ports that are NOT used for PLC shall not be measured for disturbances in the way illustrated above but shall be measured, and shall comply with the relevant mains disturbance limits, using an AMN as specified in clause 9.2.
The terminals of the T-ISN will be, in general, at mains potential. For operator safety they shall be insulated or otherwise made inaccessible.

Change first sentence of paragraph C.1 in Annex C to read as follows:
These test methods and test set-ups are used for multi purpose ports (C.1.5) or for cases where ISNs specified in 9.5.2 are not applicable.

Add C.1.5 to paragraph C.1 of Annex C to read as follows:
C.1.5 shall be applied to low voltage power distribution networks.

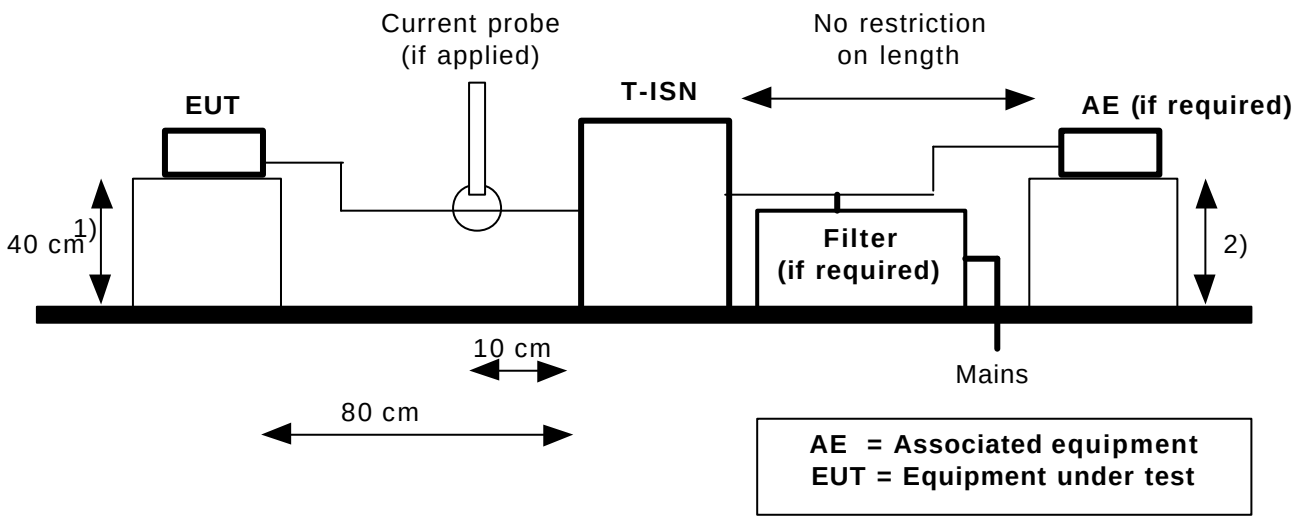
Add title and text of subclause C.1.5 to read as follows:

C.1.5 Using T-ISN

- Connect T-ISN directly to reference groundplane.
- If voltage measurement is used, measure voltage at the measurement port of the T-ISN, correct the reading by adding the voltage division factor of the T-ISN, and compare to the voltage limit.

- If current measurement is used, measure current with the current probe and compare to the current limit.
- It is not necessary to apply both, the voltage and the current limit if a T-ISN is used.
- A 50 O load has to be connected to the measurement port of the T-ISN during the current measurement.

Add figure C.5 to look as follows:



1) Distance to the reference groundplate (vertical or horizontal)
2) Distance to the reference groundplate is not critical

Figure C.5: Compliance test set-up

Add the following paragraph after figure C5.

To ensure that at any test frequency unwanted signals existing on the supply mains do not affect the measurement, an additional RF low-pass filter may be required, inserted between the T-ISN to AE connection and the supply mains. The recommended attenuation of this filter is at least 40 dB over the frequency range from 150 kHz to 30 MHz for both the differential-mode and the common-mode voltages. With this filter inserted, the impedance requirements given below shall be met. The components forming this filter shall be enclosed in a metallic screen directly connected to the reference earth of the measuring system. The voltage drop of the RF low-pass filter shall comply with clause 5.1.8 of CISPR 16-1:99.

The differential-mode impedance presented by the RF low-pass filter to the T-ISN and to the AE, from 1.6 to 30 MHz, has to be at least 20 times the differential-mode impedance of the EUT in transmit mode or the AE in receive mode, whichever is the largest.

The T-ISN shall have the following properties:

a) The common mode termination impedance in the frequency range 0,15 MHz to 30 MHz shall be 150 O ± 20 O, phase angle $0^0 \pm 20^0$.

b) The T-ISN shall provide sufficient isolation against disturbances from an AE. The attenuation of the T-ISN, for common mode current or voltage disturbances originating from the AE, shall be such that the measured level of these disturbances at the measuring receiver input shall be at least 10 dB below the relevant disturbance limit.

The required isolation is at least:

- 150 kHz to 1,5 MHz > 35 dB to 55 dB, increasing linearly with the logarithm of the frequency
- 1,5 MHz to 30 MHz > 55 dB.

Note – Isolation means the decoupling of common mode disturbance originating in an AE and subsequently appearing at the EUT port of the T-ISN.

c) The T-ISN implements an LCL of 36 dB ± 3 dB in the whole frequency range.

NOTE 1 – The above specification of LCL versus the frequency (c) is an approximate representation of the LCL between phase and neutral of typical mains networks as installed in representative environments. Such specifications are under continuing study and open to future modification.
NOTE 2 – The LCL is defined in accordance with the ITU-T Recommendation G.117: 1996.

d) The attenuation distortion or other deterioration of the signal quality in the wanted signal frequency band caused by the presence of the T-ISN shall not significantly affect the normal operation of the EUT.
e) If a voltage port on the T-ISN is available then the accuracy of the voltage division factor shall be within ±1,0 dB. The voltage division factor is the difference between the voltage appearing across the common mode impedance presented to the EUT by the T-ISN and the resulting voltage appearing across a receiver input attached to the measuring port of the ISN, expressed in decibels. For example, for a 150 O common mode impedance and a 50 O receiver input, the voltage division factor is given by 20 $\log_{10}$ (50/150) = -9,5 dB

Change title of figure C.5 to read as follows:

Figure C.6 – Calibration fixture

Add Figure D.5 with note to annex D as follows:

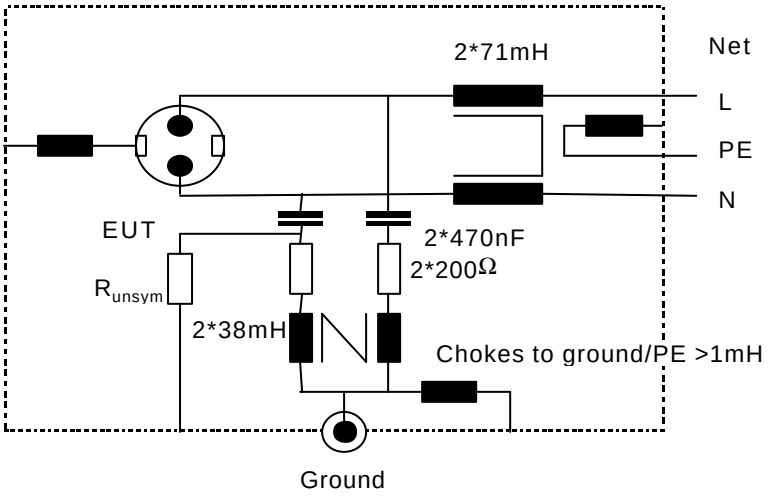


Figure D.5 T-ISN for use with power distribution networks

Note: By calibrating the resistor Runsym, the desired LCL can be achieved. This calibrating is necessary due to tolerances within the characteristics of the used chokes. The method for calibrating the ISN is to adjust the resistor while measuring the LCL of the ISN with the same method as used for the power network. If the desired LCL is reached, the value of Runsym is frozen.

Annex A
(informative)

Justification of LCL figure quoted

A.1 Documented data on LCL measurements for national committees to make an informed decision on the proposed LCL value

A measurement campaign is being performed in various countries, in order to determine the LCL of real electricity networks.
Figure A.1 shows results obtained up to the date for in-home electricity networks. The basic theory of LCL measurements can be found in the ITU-T Recommendations G.117 (02.96) and O.9 (03.99). The practical measurements are carried out according to the method described by Ian P. Macfarlane in IEEE Transactions on electromagnetic compatibility, Vol. 41, No. 1, February 1999. This method is by no means new. It was first described by Macfarlane in 1988 to CISPR Subcommittee G Working Group 2. It was developed to assist that WG's consideration of measuring methods at balanced signal ports of Information Technology Equipment for a revision of CISPR Publication 22. Since then it is considered a well proven method by the EMC community. According to the experience of the contributors to this paper, the Macfarlane methodology is also well suited to LCL measurement on low voltage distribution networks.

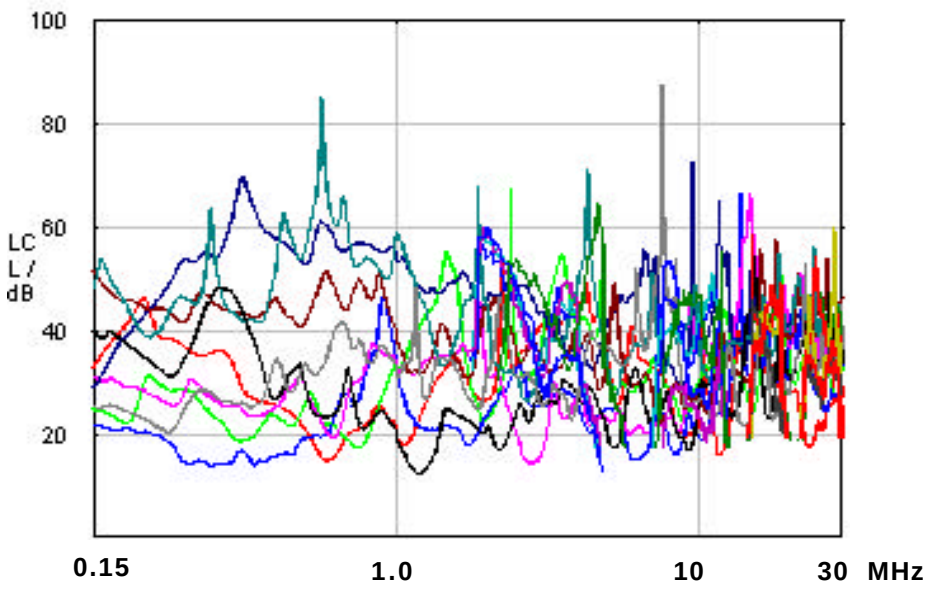


Figure A. 1. LCL - In-home electricity networks phase-neutral

Some measurements were also made on access lines. Their number is somewhat smaller and not sufficient for statistical analysis. Considering the available data it appears that the LCL of access lines is somewhat higher than the LCL on in-home lines.

A.2 Test method and apparatus used for measurements presented in A.1

A.2.1 The test adapter and formulas used.

The test method described below Figure A.2 shall allow any expert to collect additional data under comparable test conditions

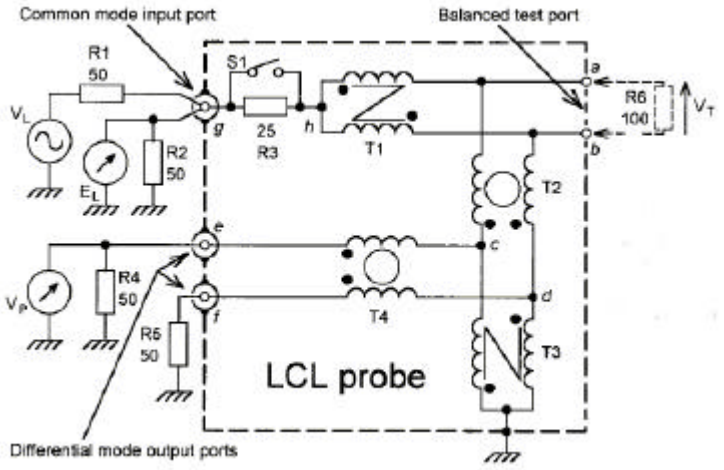


Figure A.2 Universal LCL measurement adapter according to Macfarlane IEEE Trans. on EMC, Vol. 41, No. 1, pp 3-14.

The measurements were made by connecting the terminals a/b of the balanced test port via safety capacitors of 100 nF each to the phase respectively to the neutral of low voltage distribution networks. The differential mode impedance is 100 O (R4 + R5). The common mode generator impedance is 100 O/4 = 25 O. For this purpose EL is maintained constant and the switch S1 is open. LCL is calculated as follows:

LCL = 20 log (EL / VT) or

LCL = 20 log (EL / 2 VP)

A.2.2 An example of a test equipment set-up

The measurements can be performed with 4-port test equipment like a network analyser or with a spectrum analyser-tracking generator combination. If both the generator output impedance and the analyser input impedance is 50 O, the impedance requirements of R1 through R3 of the LCL test adapter are met by simply connecting the measuring equipment to the probe. Other equipment needed is an amplifier if the output of the test-generator is not sufficiently high and surge limiters to protect the input.

Additionally, commercially available adapters, which are designed for telephone line measurements, need to be modified for use with the mains supply voltage. At the test-terminals 'a' and 'b' of the LCL test adapter two safety capacitors (Cy) have to be added. In order to keep the measuring uncertainty low at 150 kHz, the value of the capacitor should be not smaller than 100 nF.

Due to the modification of the LCL adapter with the capacitors, the 'self' LCL of the adapter shall be measured and calibrated and the adapter must be re-calibrated according to the procedures described in Macfarlane IEEE Trans. On EMC, Vol. 41, No 1,pp 3-14. The self-LCL should be at any frequency at least 10 dB higher than the actual LCL values to be measured.

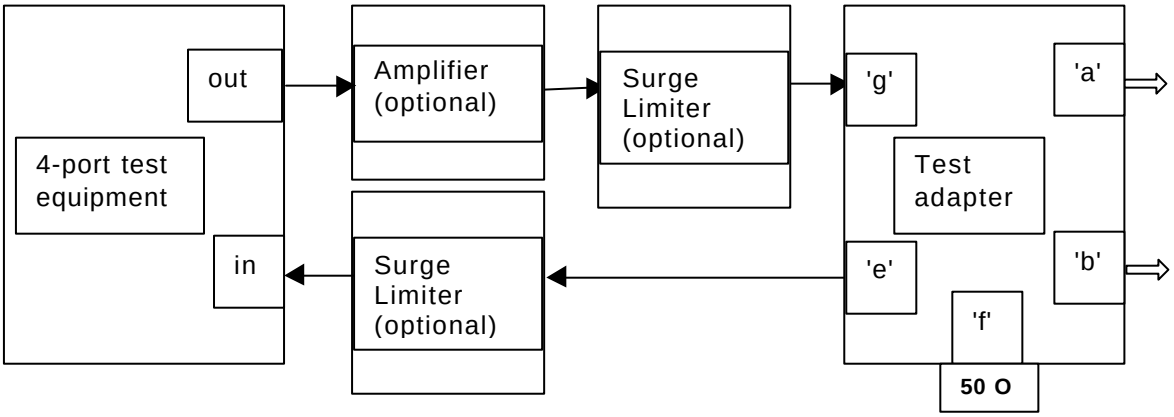


Figure A. 3 The measurement equipment set-up

The reference of the measuring set-up is ground. A virtual connection to the Ground is made by means of the large capacitance between a metal plane on which the measuring equipment - inclusive the test adapter - is placed and the environment. A trolley covered with e.g. copper or aluminium foil is a perfect measuring station. The surface of the metal plane should be at least 1 m^2. For safety reasons, the metal plate - and the measuring equipment on the metal plate - must be grounded. The safety ground point shall be isolated form the test set-up for frequencies above 150 kHz by means of common mode chokes in the ground wire. The value of the coil is at least 280 µH. This inductance value is taken form IEC61000-4-6, where it is used for the construction of CDN's. CDN's also can be used for the isolation of measurement set-equipment, e.g. a CDN M3 for the equipment power supply. An AMN with the earth connection switched 'on' also can be used.

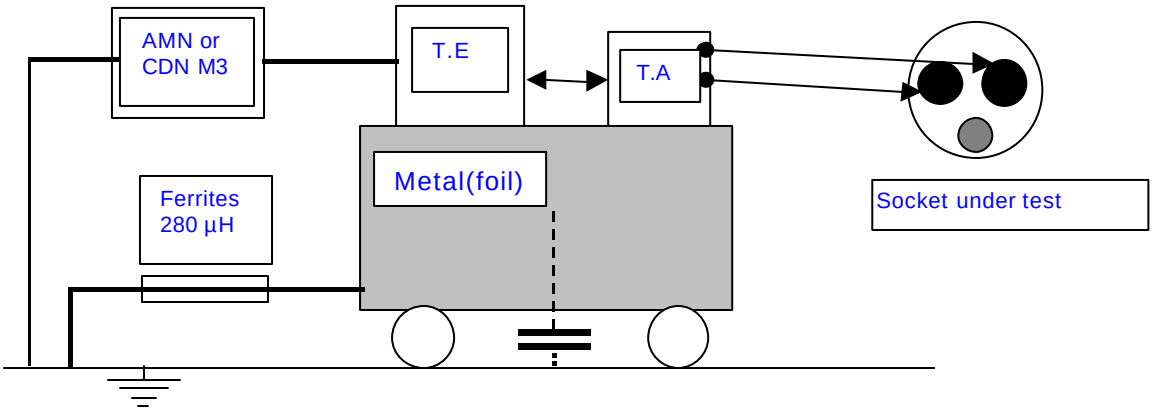


Figure A.4 The measurement equipment layout

T.E. = test equipment, connected to metal foil
T.A. = test adapter, bonded to metal foil
AMN = artificial mains network, earth coil switched 'on'
CDN-M3, defined in IEC 61000-4-6
Ferrite's on safety earth connection, value defined in IEC 61000-4-6

Note: If battery powered equipment is used, the AMN or the CDN-M3 are not present.

A.2.3 The test procedure

In this description of the test procedure it is assumed that there is only one voltage measuring device available, e.g. the input of a network analyser. This means that the voltage measurements at the ports 'g' and 'e' of the test adapter - see figure A.2 - can't be done simultaneously. If two voltage measuring devices are available, then the measuring procedure is slightly simpler. On the other hand, with two separate voltage measuring devices the tracking with the source can be a problem.

1. Connect the output of the voltage source to port 'g' of the test adapter. A coaxial T-piece is needed on port 'g'
2. Connect the input of the voltage measuring device also to port 'g' of the test adapter. Ports 'e' and ' f' are terminated with 50O. Record the injected voltage EL.
3. Connect the input of the voltage measuring device to port 'e' of the test adapter. T-piece port 'g' and port ' f' are terminated with 50O. Record the voltage VP.
4. Calculate LCL according to: LCL = 20 log (EL / 2 VP)

As an alternative, using modern spectrum analysers which keep VL constant versus frequency: If one closes S1 and one calculates LCL = 20 log VL / 4 VP there is no need to calibrate EL.

Note: The noise voltage at test adapter terminal 'e' with the test generator switched 'off' should be sufficiently low in order to get a minimum average signal to noise ratio of 10 dB. If this requirement is not met, the optional amplifier must be used.

A.3 Statistical Analysis of LCL-Measurement

The limit-value of LCL was derived by statistical analysis of all available LCL-measurement-results. The following analysis method was used:

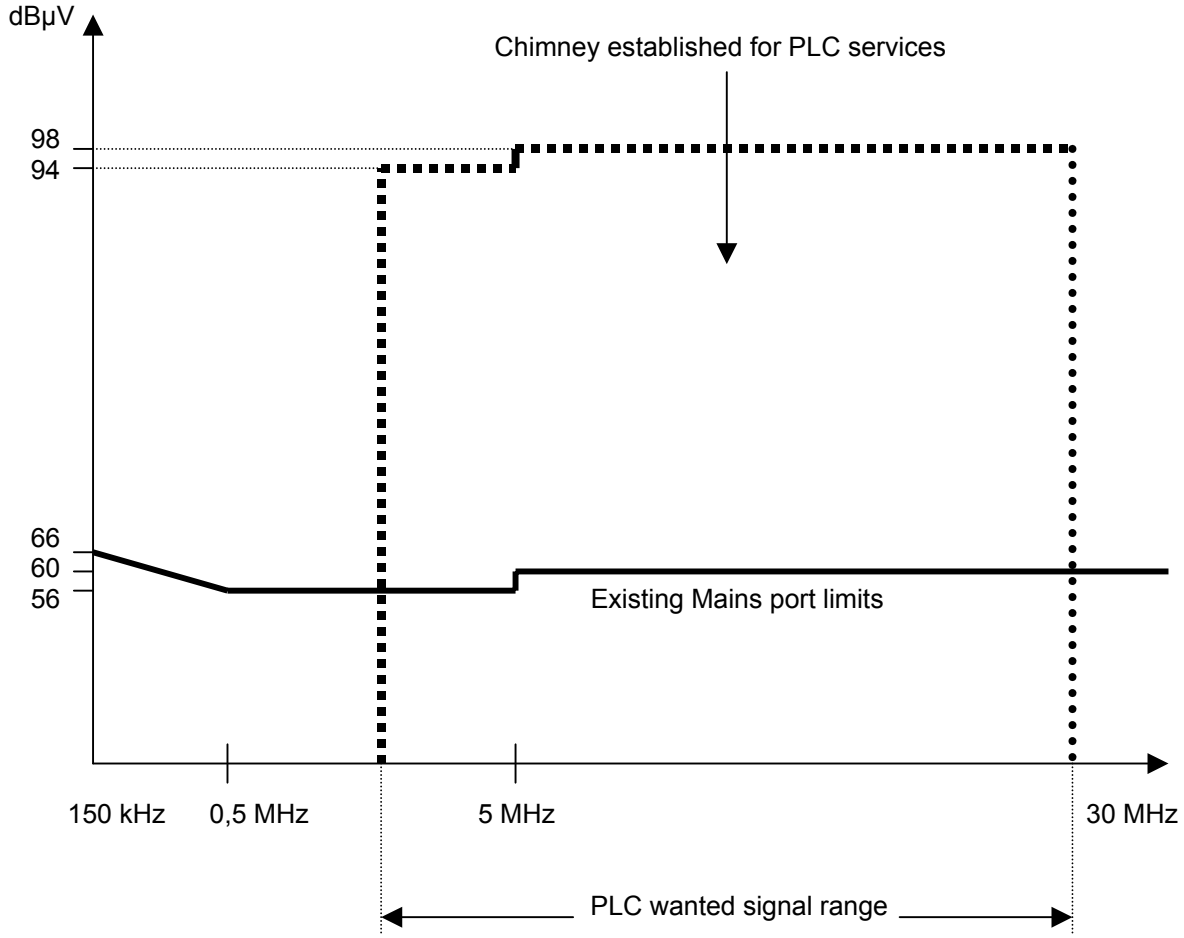
The frequencies at which the sample values were either individually measured or selected out of frequency sweep measurements were chosen at random.
The limit value of LCL was chosen in such a way that 80% of the sample-values of LCL were equal or superior to the limit-value of LCL.

The result of this analysis showed a LCL-limit value of 36 dB.

PLC chimney

1.	Apply the limits for telecom port :	+14 dB
2.	Use T-Network with 30 dB LCL :	+30 dB
3.	Make correction because of differences between V-Network and T-Network:	- 6 dB
	Resulting S/N for PLC Services :	38 dB

Disturbance emission mask for PLC



International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@skynet.be

EUROCOM Newsletter

25.09.2002

EUROCOM Meeting in San Marino

EUROCOM working group delegates and observers are convened to a meeting which will be held during the IARU Region 1 Conference in San Marino, November 2002.

The exact date, hour and room will be announced at the Conference.

Agenda

1. To open the meeting and welcome the participants
2. To nominate a secretary to the meeting
3. To approve the agenda and to call for additional topics
4. To review the activity report prepared by the EUROCOM srwg chairman (Conference document) and to submit it for approval to the working group members
5. To discuss topics presented by participants
6. To evaluate the operational mode of the EUROCOM srwg in terms of efficiency
7. To nominate a EUROCOM srwg chairman to be presented to the plenary
8. To close the meeting

See you in San Marino.

73

Gaston Bertels, ON4WF
EUROCOM srwg chairman

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTERS

2001

November 1999

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
26.01.2001

1. Regulatory Framework for electronic communications networks and services

In EUROCOM Newsletter of 23.12.2000, we commented proposal COM(2000)393 for a directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

MEP Reino Paasilinna's draft report has given rise to 165 amendments which are presently discussed in the ITRE Committee.

Among the amendments is the following :

(Amendment 162, by Fernando Fernández, Jaime Valdivielso, Alejo Vidal-Quadras)
Article 15 paragraphe 5, 6 and 6 a (new)

5. Where the Commission considers that standards and/or specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services, it shall, acting in accordance with the procedure referred to in Article 19(2), remove them from the List of standards and/or specifications referred to in paragraph 1.	5. Where the Commission considers that standards and/or specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services ***or that they no longer meet customer needs or that they hamper the implementation of technological evolution,*** it shall, acting in accordance with the procedure referred to in Article 19(2), remove them from the List of standards and/or specifications referred to in paragraph 1.
6. Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services, it shall, acting in accordance with the procedure referred to in Article 19(3), remove them from the List of standards and/or specifications referred to in paragraph 1.	6. Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services ***or that they no longer meet customer needs or that they hamper the implementation of technological evolution,*** it shall, acting in accordance with the procedure referred to in Article 19(3), remove them from the List of standards and/or specifications referred to in paragraph 1. ***6 a. The provisions of paragraphs 5 and 6 do not apply to electromagnetic compatibility standards listed in the Official Journal of the European Communities.***

Or. en

Justification:

Electromagnetic compatibility standards ensure the best possible coexistence between different technologies, services and equipment. Their amendment or withdrawal should remain the task of the European standardisation bodies.

This excerpt is to be understood as follows. In the left column, the original text of (part of) Article 15 of the drafted Directive. In the right column, the drafted Report of MEP Paasilinna, amending paragraphes 5 and 6.

The provision that *standards can be removed where the Commission considers that they no longer meet customer needs or that they hamper the implementation of technological evolution,* could possibly be extended to EMC standards where they protect radio services. Therefore we submitted a suggestion to MEP Fernando Fernández, EA8AK to consider an amendment excepting EMC standards from the provisions of paragraphs 5 and 6, insisting on the task of the standardisation bodies. We are grateful to MEP Fernando Fernández and his colleagues for Amendment 162, introducing paragraph 6a.

We will keep you informed on the issue when the Report has been adopted by the ITRE Committee.

2. Cable TV and xDSL

EUROCOM Newsletter of 27.11.2000 reported on the workshop convened on 23 November 2000 in Brussels by the European Commission and the ECCA (European Cable Communications Association) on compatibility problems between *coaxial cable systems* (Cable TV) and radiocommunication services.

Coaxial cable networks are used for cable TV and for telecommunications (xDSL). These networks are not meant to radiate electromagnetic energy. In the real world however, aging cables, weathering outdoor amplifier and distribution cabinets and faulty indoor connections made by end users, result in leaks radiating significant amounts of RF energy. Since years, the amateur radio service has been plagued by these illegal emissions, more precisely in its exclusive 144-146 MHz band. Problems are also expected if xDSL services are operating over twisted pair cables and extending its spectrum into the HF range.

This nuisance is altogether a trifle compared to the growing PLT menace impending on the HF bands.

3. PLT

Power Line Telecommunications intend to use the existing electrical power grid for telecommunication purposes. *Internet on the mains* is the goal.

The system uses HF carriers to convey the digital information. Power wires are unshielded and symmetry is poor. Field measurements on test sites in the UK and in Germany showed substantial HF radiation.

In EUROCOM Newsletters of 18.08.1999 and 13.09.1999 we draw your attention on the PLT development. CEPT / ERC SE (Spectrum Engineering) and FM (Frequency Management) are involved in studying the possible implementation of PLT and its compatibility with HF users and legal radio services (see EUROCOM Newsletter of 17.01.2000). See also the DARC document on PLC appended to the EUROCOM Newsletter of 23.12.2000.

Power Line (Tele)Communications will also be reviewed by the European Commission. A workshop is convened in **Brussels on Monday March 5th 2001**. The objective is to have the Commission acting as an arbitrator to the parties concerned by Power Line Telecommunications and to bring these to the same table despite different views.

There will be three groups of participants : PLT promotors, PLT opponents and NRA's (national regulatory authorities).

The Amateur Radio service has been invited to participate. Hilary Claytonsmith, G4JKS, EMC Consultant RSGB, will deliver a presentation on "The HF Spectrum and Broadband Networking".

4. Call for action

We urge our correspondents to alert responsable services and representatives of the HF spectrum user groups (NRA's, Military, Broadcasters, Aviation Security Services, etc) on the upcoming Workshop. Now is the time to act and make sure that all concerned parties are aware

of impending developments within the European Union. This call for action extends to countries that will be joining the Union in the near future.

The PLT workshop will be chaired by Mark Bogers, DG Enterprise. The invitation to the workshop will be sent out by the European Commission. Interested parties can ask the chairman for an invitation.

Mark Bogers, DG Enterprise
tel +32.2.296.81.83
fax: +32 2 299 41 57
e-mail <Mark.BOGERS@cec.eu.int>.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
01.02.2001

Power Line Telecommunications Workshop
Brussels, March 5th, 2001

PLT continued

In EUROCOM Newsletter of 26.01.2001, we draw your attention on the Workshop on PLT(C), organized by the PLCforum and hosted by the European Commission. We also circulated a DARC document on the impending menace PLT represents to the HF spectrum users.

Reminder

Power Line Telecommunications intend to use the existing electrical power grid for telecommunication purposes. *Internet on the mains* is the goal.

The system uses HF carriers to convey the digital information. Power wires are unshielded and symmetry is poor. Field measurements on test sites in the UK and in Germany showed substantial radiation throughout the entire HF spectrum.

Call for action

We urge our correspondents to alert responsable services and representatives of the HF spectrum user groups (NRA's, Military, Broadcasters, Aviation Security Services, etc) on the upcoming Workshop. Now is the time to act and make sure that all concerned parties are aware of impending developments within the European Union. This call for action extends to countries that will be joining the Union in the near future.

Agenda, Registration form and PLCforum presentation

The Agenda and the Registration form for the PLT Workshop are appended.

Also appended is a document from the PLCforum presenting the objective of this Workshop. The document also gives the position of the PLT industry and their view on market development.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex

Invitation to the workshop

" COMPATIBILITY BETWEEN RADIOCOMMUNICATIONS SERVICES AND POWERLINE COMMUNICATION SYSTEMS"

Hosted by the European Commission

Organized by: the PLCforum

Chaired by Mark Bogers, EC DG Enterprises

Date: Monday 5th of March, 10:00 am

Location: Brussels,
Commission Building : 1, Rue de Genève, Meeting Room “BARALDINI”
- close to the “Place Meiser” round-about, towards (Zaventem) Brussels Airport

Registration is required till February 26th!

For registration, please fill out the following form and send it via email to claudia.meyer@icn.siemens.de :

Name: .....

Company/Organisation: .....

Country: .....

Phone #: .....

Email Address: .....

Agenda

9:00 - 10:00	**Registration and Information session at the PLCforum's booth**	
10:00	**Opening of the workshop**	**Mark Bogers, EC DG Enterprises**
10:15-12:30	**Presentation session 1 (each presentation 10 minutes + 5 minutes for discussion)**	
10:15	PLCforum	Ludwig Hiebinger, Chairman of the PLCforum's Technical & Regulatory Working Group
10:30	EC Project Pallas	Klemens Gutmann
10:45	German National Regulatory Authority (RegTP)	NN
11:00	RSGB (Radio Society of Great Britain)	Hilary Claytonsmith, EMC Consultant
11:15	NATO	Mel Maudrell
11:30	BBC	Jonathan Stott
11:45	HomePlug	George Rigopoulos
12:00	ETSI	Michael Koch, Chairman of ETSI Project PLT
12:15	CENELEC	John Ryan, Secretary of SC205A
12:30 - 13:30	**Lunch break**	
13:30 - 15:30	**Panel session**	
	Chairman:	Mark Bogers, EC DG Enterprises
	Participants:	
	PLCforum	Jean-François Droubay, Chairman PLCforum
	PLCforum	Ludwig Hiebinger, Chairman of the PLCforum's Technical & Regulatory Working Group
	EC DG Information Society	Leo Koolen
	German National Regulatory Authority (RegTP)	NN
	RSGB (Radio Society of Great Britain)	Hilary Claytonsmith, EMC Consultant
	NATO	Mel Maudrell
	BBC	Jonathan Stott
15:30	**Closing of the workshop**	**Mark Bogers, EC DG Enterprises**
15:45 - 17:00	**Information session at the PLCforum's booth**	

COMPATIBILITY BETWEEN RADIOCOMMUNICATIONS SERVICES AND POWERLINE COMMUNICATION SYSTEMS

The European Commission (EC) and the PLCforum invite you to participate in a workshop designed to involve all sectors of the industry together with administrations. The PLCforum is a non-profit industrial association which presently includes more than 82 company members from over 20 countries and 3 continents. Members are active within the Power Line Communications markets, ranging from industrial companies (large and small) to electricity utilities, but also including service providers and operators.

The obvious advantage of the PLC concept is the ubiquity of the electricity network, which is available in every room, in almost every house in the developed world - denser than today's existing telephony infrastructure. The areas of developing data transmission solutions via power lines include outdoor (local loop) and in-house (home networking) solutions. PLC technology provides connection and data transfer over existing electricity networks ("power lines") and currently allows transmission speeds of 2 Mbps and beyond!

The PLCforum believes that a technology as innovative as PLC offers substantial public benefits in the area of higher bandwidth data services making the internet usable at an affordable price. Low-cost internet access for the subscriber positions Europe in the global e-commerce market and related technologies should therefore be treated in an appropriate and innovation friendly way. Furthermore, PLC enables greater competition in the provision of local loop services and increases consumer choice. European Commission has identified this need for regulation to favour and encourage both competition between operators as well as the competitiveness in general of European industry.

However, powerlines not only exist outside of building, but also within. The in-house electricity lines can be used for high speed transmission enabling the provision of Home Networking solutions or the in-house distribution of all kind of access signal (e.g. PLC Access, DSL, etc.).

The PLCforum does of course recognise the need to protect legitimate users of the spectrum and to maximise utilisation of this scarce resource by reusing bandwidth on existing cable infrastructure. Therefore, a balance needs to be struck so that there are no undue restrictions placed on the industry, operators or consumers. Members of the PLCforum proved that a considerable level of protection of other spectrum users has been achieved with their systems by extensive field trials all over Europe. The results were very encouraging as there has not been proved any interference caused by PLC. The PLCforum believes that it is also pertinent to consider that the inference level generated by telecommunications devices is substantially lower than the overall levels of interference created by fluorescent and halogen lighting and other appliances typically found in the domestic environment.

The objective of this workshop is to examine the existing situation in a European context and to identify the necessary steps and actions within various bodies required to enable PLC systems for broad market access.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
07.02.2001

Regulatory Framework for electronic communications networks and services

Amendment on EMC standards adopted by ITRE

EUROCOM Newsletters of 23.12.2000 and 26.01.2001 commented proposal COM(2000)393 for a directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

An Amendment to the draft Report of rapporteur Paasilinna had been filed by MEP Fernando Fernandez-Martin, EA8AK and two of his colleagues to preserve EMC standards, confirming the task of the European standardisation bodies to ensure the best possible coexistence between different technologies, services and equipment.

In its meeting of 6 February 2001, the Committee on Industry, External Trade, Research and Energy has adopted the draft legislative resolution by 43 votes to 1, with 3 abstentions.

Amendment 67 of Article 15, paragraph 6 a has been accepted:

(Amendment 66)

Article 15 (5) and (6) Standardisation

5. Where the Commission considers that standards and/or specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services, it shall, acting in accordance with the procedure referred to in Article 19(2), remove them from the List of standards and/or specifications referred to in paragraph 1.	5. Where the Commission considers that standards and/or specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services ***or that they no longer meet customer needs or that they hamper the implementation of technological evolution,*** it shall, acting in accordance with the procedure referred to in Article 19(2), remove them from the List of standards and/or specifications referred to in paragraph 1.
6. Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services, it shall, acting in accordance with the procedure referred to in Article 19(3), remove them from the List of standards and/or specifications referred to in paragraph 1.	6. Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services ***or that they no longer meet customer needs or that they hamper the implementation of technological evolution***, it shall, acting in accordance with the procedure referred to in Article 19(3), remove them from the List of standards and/or specifications referred to in paragraph 1.

Justification:

As explained with Article 7 (1), standards and other ways to ensure interoperability must have top priority in the interest of the end-users. For this very reason, they also need to be abolished if they lose their added value or even become counter-productive.

(Amendment 67)
Article 15 paragraph 6 a (new)

6 a. The provisions of paragraphs 5 and 6 do not apply to electromagnetic compatibility standards listed in the Official Journal of the European Communities.

Justification:

Electromagnetic compatibility standards ensure the best possible coexistence between different technologies, services and equipment. Their amendment or withdrawal should remain the task of the European standardisation bodies.

The report will be debated in Plenary by the European Parliament in its session of 28 February - 1 March in Brussels.

73.

Gaston Bertels
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
27.02.2001

Organisation and Management of the Internet

Commission Proposal and ITRE Committee Report

1. Genesis

February 2000, the European Commission launched a public consultation on the creation of a European Top Level Domain (TLD).

July 2000, the Commission published the results of this consultation. Taking into account the very favourable response, the Commission asked the *Internet Corporation for Assigned Names and Numbers* (ICANN) to delegate the TLD **.EU** (dot EU). Discussions between ICANN and the Commission started soon after.

April 2000, the Commission issued a Communication to the Council and the European Parliament on the *Organisation and Management of the Internet* (COM(2000)202).

December 2000, the Commission issued a *Proposal for a Regulation of the European Parliament and of the Council on the implementation of the Internet Top Level Domain ".EU"* (COM(2000)827). The text of this Proposal is appended (Annex 1).

2. The Proposal

The Commission proposes that the Council and the European Parliament decide with the adoption of this Regulation to charge the Commission with the implementation of the **.EU** TLD as soon as possible.

The proposed European Parliament and Council Regulation specifies therefore the rules and principles under which the Registry will operate and defines the public policy framework and the procedure to adopt decisions in relation to public policy matters.

Other aspects of the Registry 's policies would be decided by the Registry itself after appropriate consultations with the Commission and other interested parties. The Commission will be assisted in its tasks by an Advisory Committee comprising representatives of the Member States.

3. The Registry Organisation

The Registry is the entity that will be entrusted with the organisation, administration and management of the **.EU** TLD. The Registry will ensure three essential functions:

(a) Being the legal entity responsible for the Registry

(b) Implementing public policy rules, policies and procedures relating to the **.EU** TLD included in the Regulation or adopted by the Commission according to the consultation procedure provided by the Regulation.

(c) Organising, administering and managing the **.EU** TLD including the operations of maintenance of databases, registration of domain names, running the name-servers and dissemination of TLD zone files.

4. Parliamentary Committees Report

The Committee on Industry, External Trade, Research and Energy (ITRE), rapporteur Massimo Carraro, has drafted a Motion for a Resolution to be discussed and adopted by the plenary of the European Parliament in March 2001.

The text of the ITRE Report is appended in .pdf format (Annex 2).

5. Conclusion

EUROCOM Newsletters of 23.12.2000, 16.02.2001 and 07.02.2001 reviewed the European Union's efforts to create a *Regulatory Framework for electronic communications networks and services.*

Although not specifically included in the so called "Telecommunications Regulatory Package", the regulation on the implementation of the Internet Top Level Domain ".EU" is one more element in the telecommunications' structure the Union is presently setting up.

Amateur radio operator's are amongst the technically oriented users of the Internet. It is likely a good idea to be informed on the regulatory measures the European Union is developing.

The appended documents supply up to date information.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annexes : 2

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 12.12.2000
COM(2000) 827 final

2000/0328 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the implementation of the Internet Top Level Domain ".EU"

(presented by the Commission)

EXPLANATORY MEMORANDUM

1 INTRODUCTION

In February 2000, the Commission initiated a public consultation on creating the **.EU** Internet Top Level Domain (TLD). The Commission published its conclusions as to the results of that consultation in July 2000[1] ("the July 2000 Communication"). In the light of the strongly positive response, the Commission has requested delegation of the **.EU** domain from the Internet Corporation for Assigned Names and Numbers (ICANN) by letter of 6 July 2000. ICANN replied on 10 August 2000 and discussions between ICANN and the Commission continue.

On 25 September 2000, the ICANN Board adopted a Resolution according to which ISO two letter codes, such as EU, the use of which has been reserved for any application in relation with the code are delegable as ccTLDs (country code Top Level Domains), subject to achieving appropriate agreements between ICANN and the Registry .[2] This decision of principle is very welcome and permits the EU Institutions and the European private sector to proceed with the proposal, in the full expectation that the necessary technical and legal agreements will be put in place in a timely manner.

Meanwhile, as announced in the July 2000 Communication, the Commission and the Internet community in Europe have moved forward with detailed technical and policy preparations. This has been done in the context of the existing European Community Panel of Participants (EC-POP) who have constituted an Interim Steering Group (ISG) that worked on this question during May-October 2000.A report on their work is available and has been published for comment .[3] Indeed, the Community has an interest in benefiting from the available expertise among those groups most actively participating in the development of the Internet in Europe. For that reason, particular attention has been paid to the work of the Interim Steering Group, including for example, its analysis of the eventual operational and technical characteristics of the Registry, contractual relationships between the Commission and the Registry and the options for the form that organisation could take. The ISG members recognise that their work in this area was of an advisory nature.

The July 2000 Communication stated that:

> *"the Commission will draw conclusions for the legal framework for the operation of the system, including the designation of the entity in charge of running the **.EU** registry and the guidelines for its registration policy, which will include measures to counter the speculative and abusive registration of names. These conclusions will form the subject of a further Communication."*

Having assessed the issue, the Commission has concluded that a further communication is not necessary and considers that it is appropriate to propose directly the instrument to implement the **.EU** domain. The Commission now proposes that the Council and the European Parliament decide with the adoption of this Regulation to charge the Commission with the implementation of the **.EU** TLD as soon as possible. The proposed European

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1 COM(2000) 421, 5 July 2000.

2 See: http://www.icann.org/minutes/prelim-report-25sep00.htm.

3 The Dot EU Registry Proposal, Report of the Interim Steering Group (ISG) © ec-pop.org, September, 2000. < http://www.ec-pop.org/1009prop/index.htm >.

Parliament and Council Regulation specifies therefore the rules and principles under which the Registry will operate and defines the public policy framework and the procedure to adopt decisions in relation to public policy matters. Other aspects of the Registry 's policies would be decided by the Registry itself after appropriate consultations with the Commission and other interested parties. The Commission will be assisted in its tasks by an Advisory Committee comprising representatives of the Member States.

2 THE REGISTRY ORGANISATION

The Registry is the entity that will be entrusted with the organisation, administration and management of the **.EU** TLD.

The Registry will ensure three essential functions:

(a) Being the legal entity responsible for the Registry

(b) Implementing public policy rules, policies and procedures relating to the **.EU** TLD included in the Regulation or adopted by the Commission according to the consultation procedure provided by the Regulation.

(c) Organising, administering and managing the **.EU** TLD including the operations of maintenance of databases, registration of domain names, running the name-servers and dissemination of TLD zone files

Consistent with the outcome of the public consultation, the Registry shall be a not-for-profit organisation, operated in the public interest. The latter is indeed a well established principle for ccTLD registries, as expressed in the relevant ICANN and IANA documents, notably RFC 1591.[4]

The Commission will designate the Registry organisation. The report of the Interim Steering Group (ISG) describes the options for the structure and membership of the future Registry without making any final choices or decision. The report strongly recommends that the Registry should be an inclusive and representative organisation enjoying as broad a consensus of the interested parties as possible. The organisation of the Registry should facilitate consultation and participation of interested parties for a broad consensus of Internet operators and users throughout the Community.

The Regulation specifies the conditions according to which the Registry will organise, administer and manage the **.EU** TLD. Contractual arrangements between the Commission and the Registry shall ensure that the responsibilities of the Registry are carried out according

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[4] Request for Comments (RFC) 1591 states *inter alia* that: "These designated authorities are trustees for the delegated domain, and have a duty to serve the community … both the nation, in the case of a country code, and the global Internet community. Concerns about "rights" and "ownership" of domains are inappropriate. It is appropriate to be concerned about "responsibilities" and "service" to the community. The designated manager must be equitable to all groups in the domain that request domain names. This means that the same rules are applied to all requests, all requests must be processed in a non-discriminatory fashion, and academic and commercial (and other) users are treated on an equal basis. No bias shall be shown regarding requests that may come from customers of some other business related to the manager -- e.g., no preferential service for customers of a particular data network provider. There can be no requirement that a particular mail system (or other application), protocol, or product be used." IANA, March 1994.

to the Regulation and in particular that the conditions for the implementation of the **.EU** TLD are fulfilled in practice on a permanent basis. In this respect the Commission, acting on behalf of the Community will retain all rights to the **.EU** code, sufficient rights in all databases to be able to re-designate the registry should the need arise in the future, and other safeguards of a technical nature. The manner of delegating the operational functions of the registry to a registry organisation shall take full account of the character of the **.EU** domain name as a public resource, and that the policy of the not-for-profit entity will be effectively respected in its operation. The contract would exclude the European Community from legal or commercial liability arising from the organisation, administration and management of the Registry.

An agreement between ICANN/IANA and the Registry regarding the technical and organisational aspects of the implementation of the **.EU** TLD will be concluded with the prior consent of the Commission.

3 POLICY FRAMEWORK

Public policy rules concerning the implementation of the **.EU** TLD, not laid down in the Regulation, will be adopted by the Commission in accordance with the procedure referred to in Article 5, the Registry being consulted.

In order to prevent and resolve conflicts between domain names registration and intellectual property rights, the Commission shall, in accordance to the procedure laid down in the Regulation adopt a policy to prevent speculative and abusive registration of domain names and a policy for the extra-judicial settlement of conflicts which shall conform to best practices including the recommendations of the World Intellectual Property Organisation (WIPO).

The Commission will initiate a public consultation [5] on the basis of draft principles for the prevention of speculative and abusive registration of names, and shall propose a Code of Conduct on the basis of the results of the consultation. Meanwhile, the Commission shall continue to consult with WIPO and with ICANN/GAC[6] on this matter.

> **Subject to certain safeguards the detailed registration policy will be determined by the Registry in consultation with the Commission and according to the contractual arrangements. Relevant safeguards would include for example the respect of the applicable Community and national laws, and of technical and operational "best practice" as determined from time to time by ICANN and IANA. The available options for the registry's registration policy are discussed in the ISG Report, including a discussion of the options for the creation of generic second level domains.**

In relation to the registration policies to be adopted by the Registry, the Commission is currently examining the following questions:

- definition of the name-space reserved for the use of the EU Institutions and eventually the governments of the Member States

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[5] [This public consultation has been published at: http://www.dot-eu-consult.eu.int – to be confirmed].

[6] ICANN Governmental Advisory Committee (ICANN-GAC).

- definition of the name-space destined particularly for public-service, not for profit organisations, co-operative, cross-border projects and similar entities

- reservation of names associated with the European Union in all relevant languages.

The Council and the European Parliament, together with other EU organisations and entities, are invited to identify their requirements in this regard and communicate them to the "Comité Editorial Inter-Institutionnel Internet (CEiii)"[7].

Judicial remedies available to third parties include standard remedies such as annulment under Article 230 (ex 173) for Commission acts , European Court of Justice action in case of public policy acts of the Registry, subject to control by the Commission, and Court action in the Member State where the Registry is established for commercial and administrative acts of the Registry.

CONCLUSIONS:

The Council and the European Parliament are invited to adopt the attached Regulation and to charge the Commission to implement the **.EU** TLD, to designate a Registry and to develop the public policy rules in accordance with the procedure set by the Regulation.

[7] The CEiii is the Inter-institutional committee charged with the management of Europa and other aspects of the EU's presence on the world-wide-web, including the DNS.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the implementation of the Internet Top Level Domain ".EU"

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 156 thereof,

Having regard to the proposal from the Commission[8],

Having regard to the opinion of the Economic and Social Committee[9],

Having regard to the opinion of the Committee of the Regions[10],

Acting in accordance with the procedure laid down in Article 251 of the Treaty,

Whereas:

(1) The creation of the **.EU** Top Level Domain (TLD) is included as one of the targets to accelerate electronic commerce in the eEurope initiative as endorsed by the European Council at its meeting in Lisbon on 23 and 24 March 2000.

(2) The Communication from the Commission to the Council and the European Parliament on the Organisation and Management of the Internet[11] refers to the creation of the **.EU** TLD and the Council Resolution on the Communication[12] charges the Commission to encourage the co-ordination of policies in relation to the management of the Internet.

(3) Internet TLDs are an integral part of the Internet infrastructure. They are an essential element of the global interoperability of the World Wide Web ("WWW" or "the Web") The connection and presence permitted by the allocation of domain names and the related addresses allow users to locate computers and Web-sites on the Web. TLDs are also an integral part of every Internet e-mail address.

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8 OJ C , , p. .
9 OJ C , , p. .
10 OJ C , , p. .
11 COM(2000) 202.
12 […..]

(4) The **.EU** TLD will promote easier access to Internet networks and to the virtual marketplace based on the Internet, in accordance with Article 154(2) of the Treaty, by providing an additional and alternative registration domain to existing country code Top Level Domains (ccTLDs) or global registration in the generic Top Level Domains (gTLDs), and will in consequence increase choice and competition.

(5) The **.EU** TLD will improve the interoperability of trans-European networks, in accordance with Articles 154 and 155 of the Treaty, by ensuring the availability of **.EU** name servers in the Community. This will affect the topology and technical infrastructure of the Internet in Europe which will benefit from an additional set of name servers in the Community.

(6) Through the **.EU** TLD, the Internal Market will acquire higher visibility in the virtual marketplace based on the Internet. The **.EU** TLD will provide a clearly identified link with the European Community, the associated legal framework, and the European marketplace. It will enable undertakings, organisations and natural persons within the Community to register in a specific domain which will make this link obvious. As such the **.EU** TLD will not only be a key building block for electronic commerce in Europe but will also support the objectives of Article 14 of the Treaty.

(7) The **.EU** TLD should be implemented in accordance with the relevant principles adopted by the Governmental Advisory Committee (GAC) of the Internet Corporation for Assigned Names and Numbers (ICANN). These principles state, in particular, that the Internet naming and addressing system is a public resource that must be managed in the interests of the global Internet community, and that country code top level domains are operated in trust by Registries for the public interest, including the interest of the Internet community, on behalf of the relevant public authorities, including governments who ultimately have public policy authority over their ccTLDs, consistent with universal connectivity of the Internet

(8) The Commission, acting on behalf of the Community, has requested the delegation of the EU code for the purpose of creating an Internet TLD. On September 25, 2000 ICANN issued a resolution providing that *"alpha-2 (…) codes are delegable as ccTLDs only in cases where the ISO 3166 Maintenance Agency, on its exceptional reservation list, has issued a reservation of the code that covers any application of ISO 3166-1 that needs a coded representation in the name of the country, territory or area involved"*. Such conditions are met by the EU code which is therefore "delegable" to the Community.

(9) The Community should establish the conditions of implementation of the **.EU** TLD to provide for the designation of a Registry and establish the public policy framework within which the Registry will function.

(10) In accordance with the principles of subsidiarity and proportionality as set out in Article 5 of the Treaty, the objectives of the proposed action, to implement the **.EU** TLD, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and effects of the action, be better achieved by the Community. This Regulation confines itself to the minimum required in order to achieve those objectives and does not go beyond what is necessary for that purpose.

(11) In accordance with Article 2 of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission[13], measures for the implementation of this Regulation should be adopted by use of the advisory procedure provided for in Article 3 of that Decision.

HAVE ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation charges the Commission with the implementation of the .EU Top Level Domain (TLD), sets out the conditions for such implementation, including the designation of a Registry, and establishes the public policy framework within which the Registry will function.

Article 2

Characteristics of the Registry

1. For the purposes of this Regulation, "Registry" means the entity entrusted with the organisation, administration and management of the **.EU** TLD including maintenance of the corresponding databases, registration of domain names, operation of the Registry TLD name-servers and dissemination of TLD zone files.

2. The Commission shall designate the Registry. The Commission and the Registry shall enter into a contract for a limited period of time, renewable. The contract shall specify the conditions according to which the Commission supervises the organisation, administration and management of the **.EU** TLD by the Registry.

3. The Registry shall be a not-for profit entity formed in accordance with the law of a Member State and having its registered office, central administration and principal place of business within the Community.

4. The Registry shall enter into a contract with the Internet Corporation for Assigned Names and Numbers (ICANN), having obtained the prior consent of the Commission. Such contract shall be consistent with the relevant principles recommended by the ICANN Governmental Advisory Committee (GAC).

Article 3

Obligations of the Registry

1. The Registry shall observe the rules, policies and procedures laid down in this Regulation and adopted by the Commission pursuant thereto.

[13] OJ L 184, 17.7.1999, p. 23.

2. The Registry shall :

a) organise, administer and manage the **.EU** TLD on the basis of principles of quality, efficiency, reliability and accessibility;

b) observe applicable public procurement rules and, in any event, observe transparent and non-discriminatory procedures;

c) register domain names in the **.EU** TLD requested by any:

(i) undertaking having its registered office, central administration or principal place of business within the Community, or

(ii) organisation established within the Community, or

(iii) natural person resident within the Community;

d) impose affordable annual fees directly related to costs incurred.

3. Any aspects of the registration policy for the implementation of the **.EU** TLD other than those referred to in Article 4(1) shall be determined by the Registry in consultation with the Commission and other interested parties and in accordance with the contract between the Commission and the Registry referred to in Article 2(2).

4. Any decision taken by the Registry shall be subject to the jurisdiction of the Member State of establishment of the Registry.

Article 4

Public policy framework

1. The Commission shall adopt public policy rules concerning the implementation of the **.EU** TLD in accordance with the procedure referred to in Article 5 (2), having consulted the Registry.

2. With a view to preventing and resolving conflicts between domain name registrations and intellectual property rights, and taking into account Community and national laws, the Commission, after consulting the Registry and in accordance with the procedure referred to in Article 5 (2), shall :

a) adopt a policy and procedure to prevent speculative and abusive registration of domain names, which shall conform to best practices, including the recommendations of the World Intellectual Property Organisation (WIPO);

b) adopt an extra-judicial settlement of conflicts policy and procedure to promptly resolve disputes between domain names and intellectual property rights, which shall conform to best practices, including the recommendations of the WIPO. This policy shall provide adequate procedural guaranties for the parties concerned and shall apply without prejudice to any court proceeding.

Article 5

Committee

1. The Commission shall be assisted by the committee established by [Draft] Directive XX/XX/EC on a common regulatory framework for electronic communications networks and services[14].

2. Where reference is made to this paragraph, the advisory procedure laid down in Article 3 of Decision 1999/468/EC shall apply, in compliance with Article 7 and Article 8 thereof.

Article 6

Reservation of rights

The Community shall retain all rights relating to the **.EU** TLD including, in particular, intellectual property rights and other rights to the Registry databases required to ensure the implementation of this Regulation and the right to re-designate the Registry.

Article 7

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Communities*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament,	*For the Council*
The President	*The President*

[14] Proposal for a Directive on a common regulatory framework for electronic communications networks and services – COM(2000) 393.

FINANCIAL STATEMENT

1. TITLE OF OPERATION

Implementation (creation, operation and supervision) of the .eu Internet Top Level Domain

2. BUDGET HEADING INVOLVED

B5-302

3. LEGAL BASIS

Article 156 of the Treaty

4. DESCRIPTION OF OPERATION

4.1 General Objective: To create a system and facilities for the registration of domain names for Internet identification and addresses under the '.eu' Top Level Domain.

The Commission proposes that the Council and the European Parliament should adopt a Regulation that would *inter alia* empower the Commission to designate an organisation that would perform the functions of a Registry of domain names under '.eu'.

The appropriations described in this financial statement are those required to enable the Commission to develop policy for and maintain control over the Registry, including the employment of experts for evaluation, advice to the Commission, audit and review.

The Registry will set up and operate all necessary technical and organisational systems and facilities. The Registry will accredit the Registrars, or commercial agents, that will perform the actual registration of domain names in the '.eu' domain on a commercial and competitive basis. Specific arrangements will be put in place for registrations related to public organisations and services, including the Institutions of the European Union. The Registry will charge the registrars a fixed fee for each registration to defray its costs and will operate on a sustainable cost-recovery, not-for-profit basis.

The investments and expenditure by the Registry are expected to be undertaken by the Registry against the expectation of revenue from registrations. The amount of a fee for a registration will be fixed in order to cover the expenditure of the Registry. It is not the intention to use the Registry to generate income. However, taking into account the difficulty of making reliable forecasts for the first year, if a surplus is recorded after the first year, that surplus will be transferred to the to the Community budget. While normally the funds would be considered as general receipts to the budget of the Community, as a precautionary measure, it may be useful to consider

that they temporarily constitute a reserve available for intervention in the event of force majeure (in case of loss or by major problems with the Registry).

4.2 Period covered and arrangements for renewal

2001 – 2005, renewable on the basis of a report on achievements and an assessment of future requirements

5. CLASSIFICATION OF EXPENDITURE OR REVENUE

5.1 Non-compulsory expenditure

5.2 Differentiated appropriations

5.3 Type of revenue involved

Revenue will comprise registration fees received from registrars. Such income will be employed to defray investments and ongoing expenditure by the Registry in the performance of its contractual obligations.

6. TYPE OF EXPENDITURE OR REVENUE

Expenditure by the Commission relates to the following functions:

- Consultation of the private sector participants e.g. costs of experts and meetings
- Consultation of the Member States e.g. Advisory Committee and other meetings
- Publications in the context of this initiative.

7. FINANCIAL IMPACT

7.1. Method of calculating the total cost of operation (relation between individual and total costs)

The appropriations needed are those to enable the Commission to maintain policy control over the Registry.

7.2. Itemised breakdown of cost

Breakdown	year n	n +1	n + 2	n + 3	n + 4
Meetings of experts	90.000	70.000	60.000	60.000	60.000
Information and publications	20.000	20.000	20.000	20.000	20.000
Experts and evaluators	10.000		10.000		10.000
Total	120.000	90.000	90.000	80.000	90.000

7.3. Operational expenditure for studies, experts etc. included in Part BA of the budget

Commitment appropriations EUR

	year n	n +1	n + 2	n + 3	n + 4
Meetings of experts	90.000	70.000	60.000	60.000	60.000
Information and publications	20.000	20.000	20.000	20.000	20.000
	110.000	90.000	80.000	80.000	80.000

8. FRAUD PREVENTION MEASURES

The contract for the operation of the Registry shall maintain a requirement for public-service rules for transparency in recruitment, expenditure and contracts. The accounts of the contracting organisation shall be open to scrutiny by the Commission and other competent institutions. The Commission will have a right of oversight over major items of expenditure.

Three years after beginning operations, independent experts will assess the impact of the action and make recommendations as to the appropriate conditions for the continuing operation of the Registry

9. ELEMENTS OF COST-EFFECTIVENESS ANALYSIS

In view of the requirement that the Commission itself would acquire and retain a permanent role of public policy oversight for the Registry and that this would include responsibility for public policy-related decisions regarding the Registry's operations, a small permanent staff and corresponding resources will be required. This requirement will be particularly onerous during the pre-startup period where substantial policy development will have to take place prior to the constitution and designation of the Registry itself. The requested staff and budgetary resources are the minimum required during the initial phase.

9.1 Specific and quantified objectives; target population

9.1.1 Regarding the Commission's role, an approximate scenario would involve, during the initial period:

- Member States Advisory Committee: quarterly, involving 20-25 people
- Advisory panel meetings: initially monthly, involving 15-20 people, including travel and per-diem.

- Private Sector consultation: once every three months, involving 100-150 people. (Travel and per-diem re-imbursed only in exceptional circumstances.)

- International relations: three or four meetings per year, involving long-distance travel.

Some of these costs should decline as soon as the basic policy decisions have been taken and the Registry and its relationships with the Commission have reached a steady state.

9.1.2 **Regarding the Registry itself:** it is not possible to make reliable forecasts because the overall market is growing extremely rapidly, and the number of registrations will depend crucially on the initial Registration Policy. For example, by comparison with the scale of existing medium-large sized Registries, one could envisage that there could be about one million registrations in the first year of operation and a further million in the following two years. On the assumption of an annual fee to the registry of EUR 40 per domain name, a total of EUR 40 million could be received in the first year. A lower initial registration fee is probably inadvisable, pending a solution to the problem of bulk registrations for speculative purposes, and related infringement of property and other rights.

Equipment and connectivity costs may be directly related to the rate at which new registrations are accepted and processed, however, staff costs are much more closely related to the Registration Policy.

The Registry's staff requirements will include technical and commercial operations, customer relations, procurement, legal services and management. The absolute numbers of initial staff required will, as noted above, depend on the details of the registration policy (e.g. multilingual registrations) and should in the first instance be based on an evaluation of the proposals received.

9.2. Grounds for the operation

Since the advent of Internet addressing, Top Level Domains based on letters, e.g. .int, .com, instead of the underlying numeric addresses, some 20 million addresses have been registered under the global domains, '.com', '.net' and '.org'. Seven new domains have recently been announced and there is significant use of country code domains such as '.de' (3 million names) and '.uk' (over 2 million names). There has been a demand for a '.eu' domain to indicate European identity and legal base. It is deemed appropriate that the European Community retain ultimate authority for the domain, as is increasingly the case for national governments with respect to the country-code domains. Therefore the Commission will delegate day-to-day management to a contracted organisation on a cost recovery basis, but will retain public policy control.

9.3. Monitoring and evaluation of the operation

After three years, a report will be drawn up by independent evaluators evaluating the results achieved. The evaluation will assess the effectiveness of the action, the cost-effectiveness to the users, the degree of satisfaction by users and the appropriateness of the commercial partnership. Based on this report a proposal will be made to continue, discontinue or modify the operation.

10. ADMINISTRATIVE EXPENDITURE

Requirements in terms of human resources will be covered from existing staff. Administrative resources will be covered in 2001 from the allocations requested in the context of the budgetary procedure for 2001, unless future resources can be obtained.

10.1 Effect on the number of posts

The operation requires 6 staff members (3 A, 1 B, 2C) to manage the operation, including maintaining appropriate presence in EU and international fora.

Type of post	Staff to be assigned to managing the operation		Source		Duration
	Permanent posts	Temporary posts	Existing resources in the DG	Additional resources	
Officials or A temporary B staff C	3 1 2		3 1 2		4 years 4 years 4 years
Other resources					
Total	6		6		

10.2 Overall financial impact of human resources

	Amounts	Method of calculation
Officials A B C	1393236 232104 316000	4 years x 116 103 x 3 staff 4 years x 58026 x 1 staff 4 years x 37000 x 2 staff
Total	1941340	

10.3 Increase in other administrative expenditure as a result of the operation

Budget Heading	Amounts	Method of calculation
A0-7031 Committee	45000	Annually, 3 meetings x 15 participants
A0-7010 Missions	30000	Annually, 10 pers/missions ICANN/IETF etc.

EUROPEAN PARLIAMENT

1999 *2004*

Session document

FINAL
A5-0063/2001

19 February 2001

REPORT

on the Commission communication to the Council and the European Parliament on 'The Organisation and Management of the Internet – International and European Policy Issues 1998-2000'
(COM(2000) 202 – C5-0263/2000 – 2000/2140(COS))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Massimo Carraro

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PROCEDURAL PAGE

By letter of 14 April 2000, the Commission forwarded to Parliament a communication on 'The Organisation and Management of the Internet – International and European Policy Issues 1998-2000' (COM(2000) 202 – 2000/2140(COS)).

At the sitting of 13 June 2000 the President of Parliament announced that she had referred the communication to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on Citizens' Freedoms and Rights, Justice and Home Affairs and the Committee on Legal Affairs and the Internal Market for their opinions (C5-0263/2000).

The Committee on Industry, External Trade, Research and Energy appointed Massimo Carraro rapporteur at its meeting of 22 June 2000.

It considered the Commission communication and the draft report at its meetings of 11 October 2000, 4 December 2000 and 13 February 2001.

At the last meeting it adopted the motion for a resolution by 39 votes to 0, with one abstention.

Before voting began, Christian Foldberg Rovsing declared that he had interests in this area and would therefore not take part in the vote.

The following were present for the vote: Carlos Westendorp y Cabeza, chairman; Renato Brunetta, Nuala Ahern and Peter Michael Mombaur, vice-chairmen; Massimo Carraro, rapporteur; Konstantinos Alyssandrakis, Ward Beysen (for Willy C.E.H. De Clercq), Guido Bodrato, Giles Bryan Chichester, Nicholas Clegg, Claude J.-M.J. Desama, Harlem Désir, Concepció Ferrer, Christos Folias, Jacqueline Foster (for Godelieve Quisthoudt-Rowohl), Neena Gill (for Myrsini Zorba), Norbert Glante, Lisbeth Grönfeldt Bergman (for Marjo Tuulevi Matikainen-Kallström), Michel Hansenne, Malcolm Harbour (for Roger Helmer), Hans Karlsson, Bashir Khanbhai (for Konrad K. Schwaiger), Rolf Linkohr, Eryl Margaret McNally, Angelika Niebler, Giuseppe Nisticò (for Dominique Vlasto), Reino Kalervo Paasilinna, Yves Piétrasanta, Elly Plooij-van Gorsel, Samuli Pohjamo (for Colette Flesch), John Purvis, Daniela Raschhofer, Imelda Mary Read, Christian Foldberg Rovsing, Paul Rübig, Ilka Schröder, Esko Olavi Seppänen, Jaime Valdivielso de Cué, Alejo Vidal-Quadras Roca, Anders Wijkman and François Zimeray.

The opinion of the Committee on Legal Affairs and the Internal Market is attached; the Committee on Citizens' Freedoms and Rights, Justice and Home Affairs decided on 16 January 2001 not to deliver an opinion.

The report was tabled on 19 February 2001.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

MOTION FOR A RESOLUTION

European Parliament resolution on the Commission communication to the Council and the European Parliament on 'The Organisation and Management of the Internet – International and European Policy Issues 1998-2000' (COM(2000) 202 – C5-0263/2000 – 2000/2140(COS))

The European Parliament,

– having regard to the Commission communication (COM(2000) 202 – C5-0263/2000[1]),

– having regard to the Council resolution of 3 October 2000[2],

– having regard to the Commission communication on the 'Internet domain name system – Creating the .EU top level domain', COM(2000) 421[3],

– having regard to the Commission working document on the creation of the .EU top level domain, COM(2000) 153[4],

– having regard to the conclusions of the Feira European Council meeting of 19 and 20 June 2000, SN 200/1/2000,

– having regard to its resolution of 16 March 2000[5] on the Commission communication on 'eEurope - An Information Society For All: a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000', COM(1999) 687 of 8 December 1999[6],

– having regard to the Commission communication on 'Internet Governance - Management of Internet names and addresses', COM(1998) 476[7],

– having regard to the declaration of the European Ministerial Conference held in Bonn from 6 to 8 June 1997, on global information networks,

– having regard to Rule 47(1) of its Rules of Procedure,

– having regard to the report of the Committee on Industry, External Trade, Research and Energy and the opinion of the Committee on Legal Affairs and the Internal Market (A5-0063/2001),

A. whereas balanced international representation must be achieved within ICANN, so that due account may be taken of all five geographical areas covered by the organisation,

B. whereas the European Union is at a competitive disadvantage with respect to North America as regards the infrastructure required for the expansion of the Internet, and whereas the developing countries have a very low connection rate,

C. having regard to the threat posed by the digital divide,

D. whereas the European Union can benefit from the creation of its own Top Level Domain (ccTLD), '.EU',

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[1] Not yet published in the Official Journal.
[2] OJ C 293, 14.10.2000, p.3.
[3] Not yet published in the Official Journal.
[4] Not yet published in the Official Journal.
[5] OJ C 377, 29.12.2000, p. 380.
[6] Not yet published in the Official Journal.
[7] Not yet published in the Official Journal.

and its inclusion in the Domain Name System following an application made to ICANN,

E. whereas management of the Internet should be governed by general legislation, possibly involving forms of self-regulation, which, without jeopardising the sector's development, is capable of delivering uniformity and transparency so as to ensure operability and efficiency,

F. whereas, as the ICANN GAC (Governmental Advisory Committee) stated when setting out the objectives which the organisation is to pursue, the allocation of domain names and addresses by ICANN must be carried out in a non-discriminatory and fully transparent manner,

G. whereas the process of internationalising and democratising ICANN must be completed with a view to making the organisation totally independent of national influences and ensuring that the creation of new gTLDs (generic Top Level Domains) is not affected by outside pressures,

H. whereas the Union can give a new impetus to Internet management; whereas the Commission has a role to play in this connection, both with regard to the development of self-regulation, the possible framing of European legislation (where appropriate) and with a view to future international agreements,

I. whereas the Commission plays a major role in the coordination of Internet management and in negotiations with the United States in this area,

J. whereas the consultations between the Commission, the private sector and civil society regarding Internet management are also of major importance and should therefore be encouraged,

K. whereas the provision of access to and the protection of data published on the Internet should be regulated,

L. whereas the expansion of the Internet and the liberalisation of the telecommunications industry are interrelated,

1. Welcomes the Commission communication on 'The Organisation and Management of the Internet - International and European Policy Issues 1998-2000';

2. Emphasises the need for all five geographical areas covered by ICANN to be represented by democratically-elected representatives on the organisation's Board of Directors;

3. Points to the need to define the EU entity, organisation or representative who will negotiate, on behalf of the EU Members, with the international organisations responsible for the development of the Internet, including those negotiations on the future functioning of ICANN; considers that the European Commission should be a leading authority, backed by the necessary resources, to negotiate with governments from the US and other parts of the world; insists that neither the European Commission nor the US Government nor other governments will interfere in the organisation and management of the Internet, but will give it sufficient independence and legal ground on an international basis for it to be an independent venture;

4. Considers that the neutral role of ICANN must be reinforced by a strong presence from the European Union, working alongside the US and other governments, through the Governmental Advisory Committee;

5. Supports the continuation of the self-regulatory basis of ICANN's operations, but emphasises that the EU must ensure that ICANN works within the principles of existing international codes, particularly the WIPO protocols;

6. Deplores the fact that the ICANN Board does not include a representative from the African continent;

7. Calls for the geographical composition of the ICANN Board to be reviewed at the earliest opportunity - possibly before the end of the appointed three-year deadline - in order to give Africa a seat thereon;

8. Points to the need to define the management structure of ICANN, an essential issue in order to guarantee the best possible results for its work; calls for the budgetary and financing arrangements for ICANN to be

defined clearly and transparently to facilitate annual monitoring and guarantee its future viability, irrespective of the fact that ICANN is managed privately. There should also be a transparent membership process when the corporation is being formed;

9. Considers it necessary to guarantee the independence of ICANN from the US Government and to define the legal framework to which it must adhere in future, on the understanding that it is of paramount importance to maintain international neutrality if ICANN is to play a key role in the global development of the information society. Similarly, all the continents must be represented in it;

10. Points out that the Union is lagging behind North America as regards telecommunications infrastructure;

11. Emphasises that this situation is likely to place European economic operators working in the electronic commerce sector at a disadvantage with regard to their North American competitors, since it has an adverse effect on their costs;

12. Notes that private investment is the primary source of funding for the establishment of European backbone transmission networks, which are essential to the development of the Internet in the Union given the steady increase in bandwidth applications. Points out that the need for such investment has been acknowledged in connection with eEurope action and was confirmed by the European Council at its meeting in Feira in June 2000, but that public investment should be called upon principally where private investment is insufficient;

13. Welcomes the action taken by the Commission with a view to creating a Top Level Domain (ccTLD) for the European Union, and calls on the Commission and the ICANN Board to ensure that '.EU' is created as soon as possible; considers that its registration procedures should provide a model for international best practice in this field;

14. Supports the WIPO's arbitration service in respect of the registration of domain names which infringe trademarks and looks forward to organisations submitting proposals to combat other cases of registration not made in good faith which are an infringement of personal names, for example, or a misuse of geographical designations;

15. Draws attention to the fact that, with a view to ensuring the development of the Internet within the Union, the Commission should develop, in conjunction with ICANN, effective codes of conduct (supported by legislation as appropriate), to cover the allocation and protection of domain names, action to combat fraud and cybersquatting, and access to personal data and the security and protection thereof; it is necessary to define not only the arrangements for settling disputes between the US and the EU, but also a universal method which will not be subject to differing national regulations or to merely bilateral treaties;

16. Attaches priority to the achievement of an open and competitive environment for registration, supported by an international regulatory structure for domain name registration and registrar;

17. Considers it necessary to establish clearly the scope of the responsibility of the national bodies administering the registers and of the service contractor, in the event of dispute; calls on Member Governments to coordinate their Country Code top level domain registration policies and procedures, so that users are handled in a consistent manner and with effective dispute-resolution policies, and further encourages the Commission to promote effective alternative dispute resolution procedures to reinforce the domain name registry codes of conduct;

18. Calls on the Commission to address at the earliest opportunity the problem of disparities between national laws already in force or under preparation or discussion in the Member States; as a result of this review it should encourage self-regulation and legislation with the aim of fostering the development of the Internet in Europe by ensuring uniformity and transparency within the Union;

19. Calls for a periodical evaluation of whether legislative action taken, or self-regulatory measures, have actually achieved the desired effect;

20. Considers that the European regulatory strategies in the above areas should aim to become 'best practice'

across the world Internet;

21. Calls for the common Internet management standards to be included in the negotiating package up for discussion with the applicant countries, so as to ensure that those countries have the same legislation in this area as the rest of the Member States from the moment they join the EU;

22. Draws attention to the link between the development of the Internet within the Union and liberalisation of the telecommunications industry and stresses the need for swift action to cut Internet access costs and extend flat-rate charging; calls therefore for the package of telecom proposals currently under discussion to be adopted at the earliest opportunity;

23. Points to the importance of combating the digital divide by facilitating access to the Internet for the most disadvantaged sections of the population;

24. Instructs its President to forward this resolution to the Council and Commission, and to the governments and parliaments of the Member States.

EXPLANATORY STATEMENT

Introduction

The Internet is without a doubt the most revolutionary of all the technological innovations which have emerged over the past twenty years. It has brought profound changes not just in the economic and technological spheres but also in cultural and social terms.

In the past, Internet coordination functions were handled on a case by case basis by the US Government, its contractors and volunteers. This informal management approach was dictated primarily by the context in which the Internet developed. However, the Internet's rapid expansion called for the establishment of a structure which fully reflected the diversity of the world's Internet communities.

The IANA (Internet Assigned Numbers Authority) corporation, set up at the instigation of the US Department of Commerce, can be seen as the precursor to such a structure. The IANA was responsible for allocating Internet Protocol (IP) addresses, coordinating the assignment of protocols provided for in Internet technical standards and managing the Domain Name System (DNS).

In 1998 talks held at international level and involving the Union and its Member States gradually led to the establishment of a totally new body which was no longer exclusively American in nature and which was to took over the responsibilities of the IANA: the Internet Corporation for Assigned Names and Numbers (ICANN).

ICANN, which was set up in October 1998, is a non-profit-making private-sector corporation formed by a broad coalition of the Internet's business, technical, academic and user communities. Since ICANN was set up, the IANA has continued to distribute addresses to the Regional Internet Registries, coordinate with the IETF (Internet Engineering Task Force, an international community of designers, operators and researchers involved in the development of the Internet architecture) to assign protocol parameters, and oversee the operation of the DNS.

ICANN coordinates four key areas of Internet management, namely the Domain Name System (DNS), the allocation of Internet Protocol (IP) address numbers, the management of the root server system and the coordination of protocol number assignment.

ICANN is dedicated to preserving the operational stability of the Internet, promoting competition, achieving the broadest possible representation of the global Internet community and coordinating policy through private-sector, bottom-up, consensus-based means.

The organisation has a 19-member Board of Directors (the ICANN Chairman, nine members from the three supporting organisations (with the Address Supporting Organisation, the Domain Name Supporting Organisation and the Protocol Supporting Organisation each supplying three members), and a further nine members from outside ICANN). The supporting organisations and the At-Large Membership select directors on the basis of criteria intended to achieve a geographical balance. The Board of Directors currently has eight members from North America, seven from Europe, three from the Asia/Pacific region and one from Latin America, but none from Africa. The geographical balance of it membership is to be reviewed at least once every three years.

The Board comprises five committees, namely the Audit Committee, the Committee on Conflicts of Interest, the Committee on Reconsideration, the Executive Committee and the Executive Search Committee.

It has also set up four advisory committees: the Membership Advisory Committee, the Advisory Committee on Independent Review, the Governmental Advisory Committee (GAC) – in whose work the Commission and the Member States are involved – and the DNS Root Server System Advisory Committee.

Commission communication

The Commission communication contains conclusions on ICANN's main areas of activity.

Conclusions on ICANN membership: The Commission intends to encourage the flow of information about the ICANN process to all categories of Internet users, so as to ensure an adequate level of participation and representation of the interests concerned.

Conclusions on Internet Protocol (IP) addressing: The Commission intends to take the following action to improve the Internet Protocol addressing system managed through ICANN and the Regional Registries:

- monitoring developments in ICANN and its constituent bodies, since the allocation of these addresses will have a direct effect on the feasibility and the economics of routing;
- encouraging the new constituencies to define their requirements;
- encouraging the transition to IPv6 within the European institutions and the public administrations in the Member States;
- facilitating the global expansion of the Internet through the transition from IPv4 to IPv6 addressing systems;
- in the context of EU research projects, promoting the development and use of IPv6 and next generation Internet technologies;
- encouraging the development and implementation of improved future naming and addressing systems, including Internet search and directory services and routing technologies.

Conclusions on Internet protocols: The Commission intends to:

- continue to encourage European industrial and technical support and participation in the Protocol Supporting Organisation (PSO) and its constituent bodies;
- support international cooperation between the standardisation bodies, including the PSO;
- encourage within Europe increased awareness and use of the protocols being developed;
- encourage involvement in the protocol development process by the organisations participating in related EU research projects;
- ensure that the existing neutrality of Internet specifications between alternative operating systems and other platforms is maintained and enhanced.

Conclusions on Domain Names: The Commission encourages the Member States to implement the Governmental Advisory Committee recommendations in so far as they related to governments' relations with ICANN and with their national ccTLD Registries.

The national ccTLD Registries in the Union should adapt their policies and practices to achieve a high level of transparency in their operations.

The Member States should participate with their Registry organisations in the review of the registration policies and practices of the national ccTLDs.

The Commission will continue to review whether the registration policies of the national ccTLD Registries are entirely consistent with EU internal market and competition law.

Conclusions on intellectual property: The Commission intends to:

- continue to maintain an international dialogue, notably with the World Intellectual Property Organisation (WIPO) and the US authorities, on dispute resolution and international alternative dispute resolution mechanisms;
- examine the consequences of the development of national legislation and jurisdiction based on the location of Domain Name Registries, which may have extra-territorial effects, and to propose any measures deemed necessary;
- make a proposal for a code of conduct to restrict the scope of abuses which give rise to domain name disputes;
- seek the cooperation of the Member States in the implementation of such a code of conduct.

Conclusions on data protection: The Commission intends to continue discussions with ICANN and the United States on this issue and consider the ways in which data protection rules should be applied by the national

ccTLD Registries in the Member States.

Conclusions on competition policy: The Commission intends to ascertain whether agreements and business registration practices fall under EU competition rules and, where necessary, to take appropriate action on the basis of its powers under the Treaty.

Conclusions on Internet infrastructure: The Commission intends to collect the necessary information with a view to identifying those possible further measures that would correct the current imbalances regarding the capacity and routing of Internet infrastructure in Europe.

Rapporteur's position

The rapporteur welcomes the Commission communication and expresses support for the role being played by the Commission within ICANN and in handling negotiations with the United States on how to secure still greater independence for ICANN.

At the same time, there is an urgent need for European legislation to impose uniformity on the legislation in force within the Union in areas such as the allocation and protection of domain names, action to combat Internet fraud and cybersquatting, and access to data and the security and protection thereof. Legislation of this kind is essential to the development of the Internet in Europe, and the Commission is asked to come up with proposals at the earliest opportunity. Unless common, uniform legislation is enacted, the coexistence of disparate national laws will severely disrupt the Internet's development.

Furthermore, in order to ensure the uniformity of legislation in the above areas, the common Internet management standards adopted will need to be included in the negotiating package up for discussion with the applicant countries.

The liberalisation of the telecommunications industry also has a bearing on the Internet's development, and in this connection, the rapporteur calls for a reduction in Internet access costs and the extension of flat-rate charging.

With specific regard to the Internet management functions performed within ICANN, the rapporteur hopes that the process of internationalising that organisation will be completed so as to get rid of all remaining national influence (particularly that exerted by the United States), above all as regards the creation of new generic top level domain names. The Internet must be managed in a transparent, independent and non-discriminatory manner, and this applies in particular to the allocation of domain names and addresses by ICANN.

Attention should also be drawn to the fact that Europe is lagging behind in the telecommunications infrastructure field, and that this situation is placing European operators at a disadvantage with respect to their North American competitors. Public and private investment should therefore be channelled into the creation of European backbone transmission networks.

Lastly, access costs must be cut so as to ensure uniform development and enable all users to draw the full benefits from the Internet. The legislative proposals for the telecommunications sector currently being discussed by Parliament and the Council should therefore be adopted at the earliest opportunity.

30 January 2001

OPINION OF THE COMMITTEE ON LEGAL AFFAIRS AND THE INTERNAL MARKET

for the Committee on Industry, External Trade, Research and Energy

on the communication from the Commission to the Council and the European Parliament on the Organisation and Management of the Internet: International and European Policy Issues 1998-2000
(COM(2000) 202 – C5-0263/2000 – 2000/2140(COS))

Draftsman: Malcolm Harbour

PROCEDURE

At its meeting of 21 June 2000 the Committee on Legal Affairs and the Internal Market appointed Malcolm Harbour draftsman.

It considered the draft opinion at its meetings of 8 January and 30 January 2001.

At the last meeting it adopted the following conclusions unanimously.

The following were present for the vote: Ana Palacio Vallelersundi, chairman; Ward Beysen, Willi Rothley and Rainer Wieland, vice-chairmen; Malcolm Harbour, draftsman; Luis Berenguer Fuster, Maria Berger, Carlos Candal, Charlotte Cederschiöld, Bert Doorn, Raina A. Mercedes Echerer, Enrico Ferri, Janelly Fourtou, Marie-Françoise Garaud, Evelyne Gebhardt, Gerhard Hager, The Lord Inglewood, Ioannis Koukiadis, Kurt Lechner, Klaus-Heiner Lehne, Neil MacCormick, Toine Manders, Arlene McCarthy, Manuel Medina Ortega, Bill Miller, Hartmut Nassauer, Ria G.H.C. Oomen-Ruijten, Elena Ornella Paciotti, Feleknas Uca, Theresa Villiers, Diana Wallis, Joachim Wuermeling, Stefano Zappalà and François Zimeray.

BACKGROUND/GENERAL COMMENTS

SHORT JUSTIFICATION

The Commission Report

Your draftsman welcomes the Commission's report, which provides a clear and comprehensive review of the global issues surrounding Internet management and governance. The report sets out a forward agenda for the European Commission and the national governments, which your draftsman broadly supports. This short justification, and the resulting amendments, reflect a number of specific concerns and issues that your draftsman would like to be included in the final Industry Committee report.

ICANN - An Organisation in Transition

Your draftsman strongly supports the establishment of ICANN as a neutral, truly international body to establish, promote and police the key technical standards and protocols that will make the Internet function efficiently and effectively for world citizens. In order to provide that international balance, the active participation of the European Union will be crucial, particularly in the formative stages of ICANN. The Commission needs to ensure that it has the expertise and financial resources available to carry out this key role.

Continued Support for Self-Regulation

The international governance of the Internet has, so far, proceeded on the basis of international self-regulation. The extensive consultation mechanisms developed by IANA (the predecessor of ICANN) have allowed the views of all participants to be effectively represented.

Industry stakeholders believe that this self-regulatory mechanism should continue to be supported as ICANN develops into a fully independent operation. In your draftsman's view, this strategy is correct, and the Commission's endorsement of it is welcomed. Your draftsman is concerned that the Industry Committee report carries extensive calls for "legislation" which contradict with this approach. Amendments have been proposed accordingly to clarify his position.

A Need to Respect International Codes

The operational role of ICANN as the global co-ordinator of domain name registrations and Internet address allocation needs to be carried out within the framework of existing international codes of practice and protocols. It is essential that ICANN draws upon existing international jurisprudence and provides access to recognised forms of arbitration to settle any internal disputes. ICANN must also work closely with WIPO on issues related to intellectual property ownership.

Specific Issues relating to Domain Name Registration

As well as containing a commentary on the overall policy framework, the report highlights a number of critical issues relating to the future operation of domain name registries. It is essential, for the healthy evolution of the Internet, that the domain name system should operate in an open, transparent and efficient manner. Domain name registries must be able to compete on open terms and protections must be provided against "cyber-squatting".

The Commission report highlights concerns about continued US control of domain name registration operations and some potential anti-competitive issues. It is essential that these are resolved as quickly as possible using EU influence and resources.

Competition in Electronic Communications

The Industry Committee's draft report rightly emphasises the need for plentiful and low-cost broad-band communication structures as the basis for exploiting the commercial and societal benefits offered by the Internet. However, your draftsman believes that a fully functioning internal market will provide the optimum means of delivering this network through private investment. However, there remains an important role for public-sector investment in providing very high band-width research networks to allow universities and other institutions to investigate the new protocols, product and service ideas that will fuel information society growth. Amendments have been tabled to clarify this point.

Points for the Industry Committee Report

Your draftsman has tabled a number of amendments and additional clauses to the Industry, External Trade Research and Energy Report prepared by Massimo Carraro MEP. This reflects the policies and issues set out in this explanatory statement.

CONCLUSIONS

The Committee on Legal Affairs and the Internal Market calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to incorporate the following points in its motion for a resolution:

Amendment 1

Recital G

whereas the Union can give a new impetus to Internet management; whereas the Commission has a role to play in this connection, both with regard to ***the development of self-regulation***, the ***possible*** framing of European legislation ***(where appropriate)*** and with a view to future international agreements,

Amendment 2

Paragraph 2a (New)

Points out the need to define the EU entity, organisation or representative who will negotiate, on behalf of the Member States, ***with*** the international ***organisations responsible*** for ***the*** development of the Internet, including those negotiations on the future functioning of ICANN; considers that the European Commission should ***be a leading authority, backed by the necessary resources,*** to negotiate with governments from the US and other parts of the world***;***;

Amendment 3

Recital 2b (New)

Considers that the neutral role of ICANN must be reinforced by a strong presence from the European Union, working alongside the US and other governments, through the Governmental Advisory Committee;

Amendment 4

Recital 2c (New)

Supports the continuation of the self-regulatory basis of ICANN's operations, but emphasises that the EU must ensure that ICANN works within the principles of existing international codes, particularly the WIPO protocols;

Amendment 5

Paragraph 7

Calls therefore for Community and national ***government measures that encourage (8 words deleted)*** private investment ***to expand (7 words deleted)*** European backbone transmission networks, which are essential to the development of the Internet in the Union given the steady increase in bandwidth applications***; encourages selective European Union and public sector investment in backbone networks; (1 word deleted)*** and points out that the need for such investment has been acknowledged in connection with eEurope action and was confirmed by the European Council at its meeting in Feira in June 2000;

Amendment 6

Paragraph 8

Welcomes the action taken by the Commission with a view to creating a Top Level Domain (ccTLD) for the European Union, and calls on the Commission and the ICANN Board to ensure that ".EU" is created as soon as possible; considers that ***its registration procedures should provide a model for international best practice in this field*****;**

Amendment 7

Paragraph 9 (New)

Draws attention to the fact that, with a view to ensuring the development of the Internet within the Union, the Commission should develop, in conjunction with ICANN, effective codes of conduct ***(supported by legislation as appropriate)***, to cover the allocation and protection of domain names, action to combat fraud and cybersquatting, and access to personal data and the security and protection thereof;

Amendment 8

Paragraph 9a (New)

Attaches priority to the achievement of an open and competitive environment for registration, supported by an international regulatory structure for domain name registration and registrar;

Amendment 9

New paragraph 9b (New)

Calls on Member Governments to co-ordinate their Country Code top level domain registration policies and

procedures, so that users are handled in a consistent manner and with effective dispute-resolution policies;

Amendment 10

Paragraph 9c (New)

Further encourages the Commission to promote effective alternative dispute resolution procedures to reinforce the domain name registry codes of conduct;

Amendment 11

Paragraph 10

Calls on the Commission ***(9 words deleted) to address*** at the earliest opportunity ***(7 words deleted)*** the problem of disparities between national laws already in force or under preparation or discussion in the Member States; ***as a result of this review (20 words deleted) it should encourage self-regulation and legislation (2 words deleted) with the aim of*** fostering the development of the Internet in Europe by ensuring uniformity and transparency within the Union;

Amendment 12

Paragraph 11a (new)

11a. Calls for a periodical evaluation of whether legislative action taken, or self-regulatory measures, have actually achieved the desired effect;

Amendment 13

Paragraph 12

12. Considers that the European ***regulatory strategies (two words deleted)*** in the above areas ***should aim to become 'best practice' across the world Internet;***

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
06.03.2001

Power Line Communications Workshop
Brussels, March 5th, 2001

Report

1. Reminder

EUROCOM Newsletter of 26.01.2001 announced the PLCforum Workshop, hosted by the European Commission. EUROCOM Newsletter of 01.02.2001 circulated the agenda and the registration form of the Workshop.

2. Venue

Over 100 participants gathered in the PLCforum Workshop held in the EC Baraldini room, Brussels on March 5th, 2001 and chaired by Mark Bogers, DG Enterprise.

Representatives of several national regulatory authorities assisted (Germany, France, Belgium...), as well as representatives of NATO, BBC, Deutsche Telekom and military.

The amateur radio service was represented by Hilary Claytonsmith, G4JKS, RSGB EMC consultant, Erich Lemke, DJ1BD and Gaston Bertels, ON4WF, EUROCOM chairman.

3. Presentations

- Chairman Bogers opened the Workshop by drawing attention on the standardisation issue for PLC. PLC is not a radio service and there is no regulatory spectrum issue as such.

  The density of PLC networks can be of considerable influence. To preserve HF users from interference, the chimney approach has been put forward, but no consensus was reached on the efficiency of proposed measures.

  In the EU, EMC limits setting is delegated to standardisation bodies. If standardisation mechanisms don't work, the European Commission can deliver a special mandate to try and solve the problem.

- Ludwig Hiebinger, PLCforum's Technical and Regulatory Working Group's chairman, introduced PLC. He referred to pilot projects in different European countries, offering several Mb/s wideband communications to test groups of 10 to 250 end users.

  Standards for EMC limits have been drafted but no consensus has been reached by the standardisation bodies. Hot spots are the coupling factor (injected power versus emitted electrical field) and the requested radiation limit of 50 dB (µV/m) at 10 meters distance.

  The presentator referred to a Dortmund university study.

- Klemens Gutmann presented the Palas project, targetting a market of 27 million potential users in Europe.

  A stumbling-block are different national regulations. The network termination should be defined as being the metering cabinet and not the final plug.

- Bernard Desprez, France Telecom reported on the ERC SE35 workgroup he is chairing.

- Hilary Claytonsmith, G4JKS, RSGB EMC consultant, was introduced by chairman Bogers as spokesperson for the amateur radio community in the EU.

  Hilary briefly presented the amateur radio service and stressed the threat PLC represents to amateur radio. Even with 20 dB "notches" in amateur bands, as proposed in the chimneys' approach, the remaining 30 dB (µV/m) is unacceptable and would mask all but the strongest amateur signals.

  RSGB measurements in UK suburban locations show day time noise levels below the ITU-R "rural" level (ITU-R PI 372/6 publication).

  Proposed PLT injection levels are far in excess of the EN 55022 "B" conducted emission limits. Being a cable network, PLT should be subject to the same limits as other cable distribution networks, e.g. EN 50083-8 limits for cable television networks.

  Moreover, "Access" PLT is an intrusive system as it is present in all premises connected to a power network, whether required or not. Interference prohibiting HF radio broadcast reception could be in contravention to Article 10 of the European convention on Human Rights.

  The Amateur Service cannot live with PLT if its emissions exceed existing harmonised standards. Even existing limits are too high for broadband signals using multi-carrier modulation.

- Mel Maudrell, NATO, presented the viewpoint of the organisation's HF Radio working group (1.6 - 30 MHz).

  He said not all military can use satellite communications. Moreover, there is a need to have systems independent of any relay.

  For very short paths and for communications to mobiles, HF is often the only solution. Military have often to cope with lossy antennas and very low signals. Even a 3 dB increase of the noise floor would cause severe problems. The actual noise floor is presently 20 dB lower than the former ITU measurements.

- Jonathan Stott, BBC recalled the unique HF property of creating usable skywaves. This is a valuable asset for national and for international broadcasting without third party gatekeepers.

  He referred to Digital Radio Mondiale, an worldwide consortium of broadcasters created to develop digital broadcasting in the HF bands.

  Allmost all EU countries have an international HF broadcasting service. This represents a significant voice to inform the world. Moreover, it contributes to develop European unity.

  PLT represents a serious threat to HF users. Power cables are not designed for broadband digital communication and interference is inevitable. Cumulative effects can lead to disturbances over large distances. Radio listeners cannot take any steps to reduce the problem.

- George Rigopoulos presented the HomePlug Powerline Alliance (HomePlug), an american not-for-profit corporation formed to provide a forum for the creation of open specifications for high speed home powerline networking products and services.

  The proposed system is to comply with US FCC 47CFR Part15. See a description in the appended RSGB position paper, page 5.

  Field trials are underway for Access and Indoor systems. Certification is needed and exclusion zones will be provided.

  This approach is quite different from the situation that would exist if a harmonised European standard were introduced for PLT.

- A representative of the ETSI PLT working group reported on the drafting of standards under the presumption of conformity with EU Directives.

  Efforts tend to assure compatibility between PLT systems.

- John Ryan, secretary of SC205A, commented the work done by CENELEC. SC205A covers mains communications systems.

  The existing CENELEC norm EN 50065-1 covers PLC below 148,5 kHz. The norm defines output levels, frequency bands and coexistence issues between utility systems.

For PLC above 148,5 kHz, a working group 10 has been created within SC205A. A norm has been drafted for a European specification prES59013 to assure coexistence between Access and InHouse PLC systems. Voting is scheduled for 28 March 2001.

WG10 is also developing a norm for broadband PLC, similar to EN50065-1.

Three task groups have been created :

1. PLT Access
2. Home Networks
3. In-situ measurements

First meeting June 2001.

A joint working group has been set up with ETSI to develop standards for telecommunication networks, CATV, LANS and PLT. This JWG has not yet started work. An initial meeting is scheduled for May 17th, 2001. Where ETSI is developing system standards, CENELEC is working on norms for the physical layer, up to the data link.

The JWG encounters difficulties to liaise with CISPR/G.

A synoptic table of the impressive number of bodies working on PLT issues was shown.

4. Panel session

During lunch break, a position paper prepared by the RSGB EMC Committee was deposited on each seat. This paper is appended.

Mark Bogers chaired the panel session. Here is a summary of the session highlights.

- Leo Koolen, EC reported on the "unbundling of the local loop". Up till now, 91 % of the end user market is still run by the original companies. But there has been a dramatic price reduction.
- Among the various means for increasing competition at the local loop level, PLT is one of the possibilities.
- A German network company owner stressed the importance of the organisational aspects of unbundling the local loop. If the main company does not offer sufficient facilities to the local loop market, the customer quits.
- A Spanish company representative said that in Spain PLC testing is going on in 200 households, and that there are no complaints from HF users, not even from radioamateurs living in the same building. Radiation from overhead lines in rural areas is reduced by limiting the power input to the needs of the fewer customers. PLT should not be forced to lower EMC limits than ADSL.
- A German independent said that there is lack of evidence for the radiation data produced by the PLT promotors, because the testing measurement methods are not clearly defined. One should decide upon a common measurement setup. Discrepancy results from differences in viewpoint. The UK measurements were done from the reception viewpoint and the German measurements from a statistical viewpoint, NB30 being a compromise. The same rules should apply for xDSL and PLT networks.
- Equipment is covered by the EMC Directive. But there is no standard for the lines.

5. Conclusion of the workshop

Chairman Bogers observed that many different workgroups are trying to fix the PLT issue. To solve the problem, the EC could decide to deliver an explicite mandate to one body, CENELEC being the best positioned.

6. EUROCOM

EUROCOM was invited by DG Enterprise to present the amateur radio viewpoint to a workshop hosted by the European Commission. This is a first.

We thanked chairman Bogers for this invitation.

Hilary Claytonsmith, G4JKS accepted to do the presentation. Hilary did an excellent job. Her presentation of the radio amateurs' viewpoint was warmly welcomed. Her questions and her answers during the panel session attested a solid knowledge of EMC issues. Thank you, Hilary.

All presentators used PowerPoint presentations and so did Hilary. The RSGB position paper on PLT was the only technical paper document offered to the participants. Several PP presentations were also technically well documented.

All in all, amateur radio consolidated its position as a technically valuable partner on the European Union scene.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex : 1

COMPATIBILITY BETWEEN RADIO COMMUNICATIONS SERVICES AND POWER LINE COMMUNICATION SYSTEMS

A position paper prepared by the RSGB EMC Committee for the PLC Workshop in Brussels, 5-Mar-2001

1. INTRODUCTION

The Radio Society of Great Britain (RSGB) represents the interests of some 60,000 licensed radio amateurs in the UK and also a large number of short wave listeners. The RSGB is a member of the International Amateur Radio Union (IARU) which represents the interests of radio amateurs internationally. This paper has been prepared in response to proposals for power line telecommunications (PLT) systems particularly in the range 1.6 - 30MHz.

2. BACKGROUND

The principle of using radio frequency communication via electrical power distribution wiring is not new but previously, the frequencies used have been below those used for broadcasting, i.e. below 150 kHz in Europe where there is a Long Wave broadcast band and below 450 kHz in other regions where there is no Long Wave broadcasting. If such frequencies are used for data communications, the maximum data rate that can be achieved is limited due the limited bandwidth available. This has led to pressure to introduce PLT systems that operate above 150 kHz, particularly in the range 1.6 - 30 MHz.

The proposed use of frequencies above 150 kHz for PLT challenges the fundamental purpose of EMC standards, namely to protect radio services from interference from non-radio sources. Such sources include unintentional signals generated by equipment such as switch-mode power supplies and also intentional signals generated by wire line communication systems.

3. POWER LINE TELECOMMUNICATION (PLT) SYSTEMS

In principle, PLT is no different to television, sound and/or interactive multimedia signals distributed via a cable network and for which radiated emissions are controlled by existing standards.

The current commercial proposals for PLT require considerable transmission bandwidth. ***Unless the mains cables are suitably screened, terminated and filtered, signals cannot be confined to power distribution cables alone and will be radiated by all connected wiring.*** Unless existing limits such as those for cable TV networks are applied, such emissions have the capacity to interfere with other radio services nearby. There is also a possible cumulative effect of many such emissions over considerable distances.

The HF (short wave) radio spectrum is a valuable commodity, supporting vital ‘Safety of Life’, local and world-wide broadcast and commercial communication services as well as the amateur radio service. If PLT is permitted to operate without adequate protection of radio services, much of the HF spectrum would become unusable.

There are a number of important new developments that will ensure continued use of the HF spectrum. These involve the replacement of conventional forms of modulation by new digital techniques that are optimised for the propagation characteristics of an HF radio path. These include a new digital broadcasting standard, Digital Radio Mondiale (DRM) that has been developed for high quality international HF broadcasting as well as national MF broadcasting. Other services such as military communications are using digital modulation techniques to provide reliable and secure long distance communications. A common factor to all such digital communication systems is that although they are resistant to interference from narrow band interfering carriers, they are susceptible to interference from broad-band noise-like interfering sources such as PLT.

In the case of 'in house' PLT systems that provide communication between equipment within the home, RF is injected into house wiring and it is not feasible to prevent it from radiating. In the case of 'access' systems which provide communication between homes and equipment outside the home, RF will also be radiated by house wiring and street lamps unless suitable RF filters are fitted at numerous locations. The widespread use of such filters is unlikely to be practical or cost-effective.

4 RADIO INTERFERENCE POTENTIAL

It is the RSGB's contention that PLT on HF frequencies is a cabled distribution system that should be covered by the requirements prEN 50083-8. Even if low signalling powers are employed it is believed that HF PLT will be incapable of meeting the emission or immunity requirements necessary to avoid interference to and from other services. There is a high probability that wide band emissions from PLT systems in the HF spectrum from connected domestic wiring would exceed levels allowing radio and telecommunications apparatus to operate as intended, contrary to UK Statutory Instrument 1992 - No.2372, Part 1, Section 5, Clause 4.

4.1 Emissions

PLT using HF is a cable distributed system but mains power distribution cables were designed for 50Hz power distribution and not as HF transmission lines. Without substantial screening, shielding and filtering to prevent emissions, particularly from domestic wiring, substantial levels of pollution will occur to the short wave radio spectrum against which no mitigating measures can be applied. If HF PLT becomes operational, large portions of the HF radio spectrum will become unusable, an unacceptable position. *An important part of the role of each country's PTT is to protect radio frequencies from pollution from 'non radio' sources including emissions from cable communication systems.*

Because of the two different HF propagation modes (ground wave and sky wave), there is a possibility of interference being caused to radio services at distances of tens or hundreds of kilometres due to the cumulative effect of a large number of PLT systems. Little protection is likely to be achieved by leaving 'exclusion zones' around commercial or other 'sensitive receiving areas' as these may still suffer unwanted interference, perhaps even more so than the amateur service, by virtue of the high gain and/or directional receiving antennas that may be in use. The cumulative effect of emissions from a large number of PLT sources could also cause interference to airborne users of HF when flying over built-up areas.

Mobile HF users such as the military may find reception totally blanketed by high level emissions from nearby buildings. It is impossible to predict the location of a mobile HF station and of course only simple transmitting and receiving antennas are feasible.

Data transmitted using a PLT system would need to be encrypted if interception by other users on the same power network is to be avoided. The system may also suffer interruption or degradation of service by the operation of local transmitting stations. As PLT 'access' systems use a shared communication medium, they would also be susceptible to a deliberate 'denial of service' attack by other users.

As shown in 4.2 below, the level of the composite PLT transmitted waveform could be of the order of several volts RMS. This is high enough to cause non linear mains loads to generate spurious signals such as harmonics and intermodulation products in the HF band or at VHF and above. Such a phenomenon is known and has been observed near Medium Frequency (MF) broadcast transmitters where HF intermodulation products are generated in the mains distribution network.

4.2 Immunity

The immunity levels of the PLT equipment are likely to be compromised by legitimate transmissions such as amateur radio which may have power levels up to 26 dBW on adjacent frequencies. It will be difficult if not impossible to implement mitigating measures in such cases. International Standard IEC 1000-2-5 : Electromagnetic Compatibility (EMC) - Part 2 Environment - Section 5 : Classification of Electromagnetic Environments, quotes RF field strengths of up to 10V/m in an urban environment where there are no amateur radio transmitting stations within 20m. Amateur transmissions in the HF band will be picked up by the radio amateurs' own and neighbouring house wiring and RF power may be fed back into the mains distribution network.

A precedent has already been set in the UK. In the 1980s, Rediffusion Ltd distributed television and sound by means of a cabled distribution system on a 5.5 MHz HF carrier system. Although tightly controlled and with carefully balanced transmission lines and terminal equipment input circuits, system emissions were such that it was quite feasible to receive useable television signals without actually being connected to the system. The system suffered from poor immunity to local amateur and some broadcast and commercial transmissions, many of which were using quite moderate power. Systems had to be re-routed or cable apparatus replaced by conventional equipment when local interference problems could not be resolved. This option is not open to PLT systems, it is not feasible to disconnect a consumer from the power line. There is every possibility that a transmitting station could be installed in an area served by PLT. It is difficult to see how the resulting interference and system immunity problems could be solved.

As stated in 6.2 below, the radio frequency power spectral density required for a practical PLT system is of the order of -40 dBm/Hz. This is equivalent to -0.5 dBm in 9 kHz, which is approximately 50 dB higher than the conducted emission limit permitted by EMC standards such as EN 55022 (B). If a PLT signal occupies a broad bandwidth, such as 1 MHz for example, the total power could be +20 dBm. In 50 Ω this is equivalent to 127 dB(μV) or 2.23 volts rms. This exceeds the conducted ***immunity*** test level for domestic appliances and is within 3 dB of the generic conducted immunity limit, EN 50082-1.

5. LEGISLATION

Member states of the EC are bound by the EC EMC Directive 89/336/EEC, which requires them to implement measures relating to apparatus which is liable to cause electromagnetic disturbance and to apparatus the performance of which is liable to be affected by such disturbance. In the UK, this Directive is implemented by -

Statutory Instrument - 1992 No. 2372, ELECTROMAGNETIC COMPATIBILITY
The Electromagnetic Compatibility Regulations.

Part 1, Section 5 (Protection Requirements), Clause 4 of the Statutory Instrument states -

> *(4) Without prejudice to the generality of paragraph (2)(a), the electromagnetic disturbance generated by relevant apparatus shall -*
>
> *(a) not exceed a level allowing radio and telecommunications apparatus to operate as intended; and*
>
> *(b) be such as not to hinder the use of apparatus of any of the descriptions listed in Schedule 3 hereto (being descriptions listed in the illustrative list of the principal protection requirements in Annex III of the EMC Directive) where that apparatus has an adequate level of immunity in its usual electromagnetic environment so as to allow its unhindered operation taking into account the levels of electromagnetic disturbance generated by relevant apparatus complying with applicable EMC standards.*

The above regulations impose general requirements that ***all*** systems must meet in addition to complying with any applicable standards. It is our considered opinion that proposals for cabled PLT in the HF spectrum are in direct contravention of the European EMC Directive 89/336/EEC and UK Statutory Instrument 1992 No. 2372.

A PLT system is such that emissions cannot be confined to the mains cable network and will be radiated to the HF spectrum in the frequency bands used by the system. Such emissions are not a requirement of the system operation but a function of the practical inability to engineer PLT systems to the standards necessary to prevent unwanted emissions. Spurious signals are also likely to be generated on other radio frequencies by imperfections in equipment connected to the same distribution network.

6. APPLICABLE STANDARDS

6.1 Existing standards

It should be noted that compliance with a Standard does not of itself confer immunity from legal obligations.

> BS EN 50065-1 + AMD.3. 1996 CENELEC. GENERAL REQUIREMENTS. SIGNALLING ON LOW VOLTAGE INSTALLATIONS 3KHZ - 148.5KHZ - ELECTROMAGNETIC INTERFERENCE.

> EN 50083-8 : 2000 CENELEC. CABLED DISTRIBUTION SYSTEMS FOR TELEVISION, SOUND AND INTERACTIVE MULTIMEDIA SIGNALS - PART 8: ELECTROMAGNETIC COMPATIBILITY FOR INSTALLATIONS.

EN 50083-8 is a new European Standard that covers the frequency range 0.3 MHz - 3.0 GHz and cross references to numerous 'Normative references' (other related CENELEC or IEC standards) quoting them where appropriate throughout the text. It further recognises in Section 1, Scope, the risk of interference to other radio services from cabled distribution systems -

> *"To minimise the risk of interference to other radio services caused by possible radiation from a cabled distribution system and to limit the possible penetration of external signals which may interfere with the operation of a system, it is necessary not only to use equipment which satisfies the requirement regarding limits of radiation and of immunity to external fields but also to ensure the integrity of all cable connections on each item of active or passive cabled distribution system equipment."*

The standard further lays down the maximum allowed radiation levels together with methods of measurement. Annex A (informative) additionally makes specific reference to the Radiocommunications Agency standard MPT 1520 which remains valid instead of the European Standard until removed. Existing emission standards for cable TV networks are based on single carrier modulation techniques such as VSB. Consequently, emissions may approach the limit only at a relatively small number of vision carrier frequencies. ***The same limit is not appropriate for multi-carrier modulation where a large number of sub-carriers could all approach the limit.***

> MPT 1520 - RADIOCOMMUNICATIONS AGENCY: RADIATION LIMITS AND MEASUREMENT STANDARD; ELECTROMAGNETIC RADIATION FROM CABLED DISTRIBUTION SYSTEMS OPERATING IN THE FREQUENCY RANGE 300 KHZ - 30 MHZ; JULY 1984 (REVISED 1989).

MPT 1520 is similar in scope to prEN 50083-8 and specifies radiation limits from cabled distribution systems in the frequency range 300 kHz - 30 MHz. The maximum interfering field strength permitted at 10 metres distance from a complete system in the 2190.5kHz to 30 MHz range is 20 dB(µV/m).

> IEC 61000-2-5 : ELECTROMAGNETIC COMPATIBILITY (EMC) - PART 2 : ENVIRONMENT - SECTION 5: CLASSIFICATION OF ELECTROMAGNETIC ENVIRONMENTS.

Table 5.2.1 lists 'Sources and range of disturbance degrees for radiated oscillatory disturbances'. For amateur frequencies this may reach 10V/m in a residential , urban environment (Table A.2).

> IEC 61000-3-8 - (1997-08) ELECTROMAGNETIC COMPATIBILITY (EMC) - PART 3: LIMITS - SECTION 8: SIGNALLING ON LOW-VOLTAGE ELECTRICAL INSTALLATIONS - EMISSION LEVELS, FREQUENCY BANDS AND ELECTROMAGNETIC DISTURBANCE LEVELS.

IEC 61000-3-8 (1997) applies to mains signalling in the 3kHz to 525kHz range and specifies disturbance limits in the frequency range 3kHz up to 400GHz.

EN 50065-1 applies to mains signalling at frequencies up to 148.5 kHz.

FEDERAL COMMUNICATIONS COMMISSION, CODE OF FEDERAL REGULATIONS, TITLE 47, TELECOMMUNICATIONS, PART 15, RADIO FREQUENCY DEVICES

Although not applicable in Europe, US FCC 47CFR Part 15.3 defines a 'Current-Carrier system' as:

> *"A system, or part of a system, that transmits radio frequency energy by conduction over the electric power lines. A carrier current system can be designed such that the signals are received by conduction directly from connection to the electric power lines (unintentional radiator) or the signals are received over-the-air due to radiation of the radio frequency signals from the electric power lines (intentional radiator)."*

Part 15.3 defines an 'Unintentional Radiator' as:

> *"A device that intentionally generates radio frequency energy for use within the device, or that sends radio frequency signals by conduction to associated equipment via connecting wiring, but which is not intended to emit RF energy by radiation or induction."*

.***The FCC rules that allow 'current carrier devices' were intended only for narrow band systems and originally date from the early 1950s***.

Part 15, Section 15.209 (1st October 1999 edition) defines a radiated field strength limit of 30 µV/m at 30 m. This is equivalent to 29.5 dB(µV/m) at 30 m or 39.5 dB(µV/m) at 10 m.

The FCC rules state the operators of Part 15 devices must ensure that they do not cause harmful interference to radio services. The operator of a radio frequency device is required to cease operating the device upon notification by an FCC representative that the device is causing harmful interference. Operation is not allowed to resume until the condition causing the harmful interference has been corrected. This contrasts with the situation that would exist in Europe if a harmonised European standard were introduced for PLT.

6.2 Standards Under Development

A draft CENELEC document on PLT, prES 59013 was circulated for comment in December 2000 but was withdrawn and a revised January 2001 version was circulated. This also included extracts from the ETSI SRD as informative Annexes which would not be included in the published document.

ETSI is developing a System Reference Document (SRD) for PLT. The draft includes specifications for radiated emission limits that are claimed to protect radio services against interference from PLT. These limits are 50 dB(µV/m) in the range 1.6 - 30 MHz, measured at 10 m. There is an option to implement 'notches' which reduce the Power Spectral Density (PSD) by 20 dB in specified amateur radio bands The radiated emission limit would therefore be 30 dB(µV/m) in all amateur bands, except for part of the UK '160 metre' amateur band. Only the 1.81 - 1.85 MHz section is listed as a range to be 'notched', whereas the UK band allocation is 1.81 - 2.0 MHz.

A similar proposal is contained in CENELEC SC205A (Sec)75, 'Proposal for a CENELEC ES: Power Line Communication on Low Voltage Installations in the frequency range 1.6MHz - 30MHz - Radiation and Power Spectral Density Levels'. In the CENELEC proposal, the depth of the 'notches' for the amateur bands follow a sloping characteristic that is claimed to follow NB30 limits for protection of radio services. The document does not give any details of NB30 which is the German RegTP Nutzungbestimmung (Usage Provision) NB 30. The NB30 limits are numerically equal to the RegTP 322MV05 limits [1]. ***The 322MV05 limits are measured at 3m distance whereas in the SC205A (Sec)75 proposal, the measurement distance for outdoor devices is 10 m.*** Hence the SC205A (Sec)75 proposed limit is effectively 10 dB higher than the 322MV05 limit.

Section 6 of CENELEC SC205A (Sec)75 quotes coupling factors of about 50 (dB(µV/m)-dBm) for PLC outdoor devices and about 60 (dB(µV/m)-dBm) for PLC indoor devices in the middle of rooms, where the measurement distance would be less than 3m. These results are said to be derived from measurements by the PLCforum but no further details are given. There is a large discrepancy between these PLCforum results and

the results of a comprehensive study performed by the Technical University of Dresden [2]. In section 8.1.8 of the TU Dresden report, the field strength resulting from injecting 105 dB(µV) was found to be 77 (dB(µV/m) from 500 kHz - 5MHz at a distance of 3 - 5 m. This corresponds to a coupling factor of 79 (dB(µV/m)-dBm) compared to a figure of 60 (dB(µV/m)-dBm) quoted in CENELEC SC205A (Sec)75 for indoor measurements.

Fig 3 of CENELEC SC205A (Sec)75 shows a coupling network for measurement of PSD but there is no indication of the loss in the coupling network nor whether any correction is made for this loss.

Section 1 of CENELEC SC205A (Sec)75 states that operation of a PLC system would be subject to conditions that no harmful interference is caused to any radio service. Nevertheless, there is no definition of 'harmful interference'. The RSGB EMC Committee considers that a radiated emission level of 30 dB(µV/m) for broad band signals in amateur bands is absolutely unacceptable and that such a level would cause 'harmful interference'. The level required to avoid such interference is very much lower and may not be achievable by a practical PLT system.

Fig 1 shows the proposed radiated limits from the draft ETSI PLT SRD and CENELEC SC205A (Sec)75 in relation to background noise levels at frequencies up to 30 MHz.

Tests by the RSGB EMC Committee have shown that the background noise levels in the HF band is lower than is generally realised. In particular, it is understood that the levels in ITU-R report PI 372/6 are based on measurements made in the USA and are higher than the man-made noise levels in the UK and elsewhere in Europe. A possible reason for the difference is that LV electricity distribution in the US uses predominantly overhead wiring whereas UK LV distribution wiring is predominantly underground. Some RSGB EMC Committee background noise level measurements are shown in Fig. 1. It is therefore considered that intentional broad band emissions from PLT in amateur bands should not exceed 0 dB(µV/m) in 9 kHz bandwidth at a distance of 10 m.

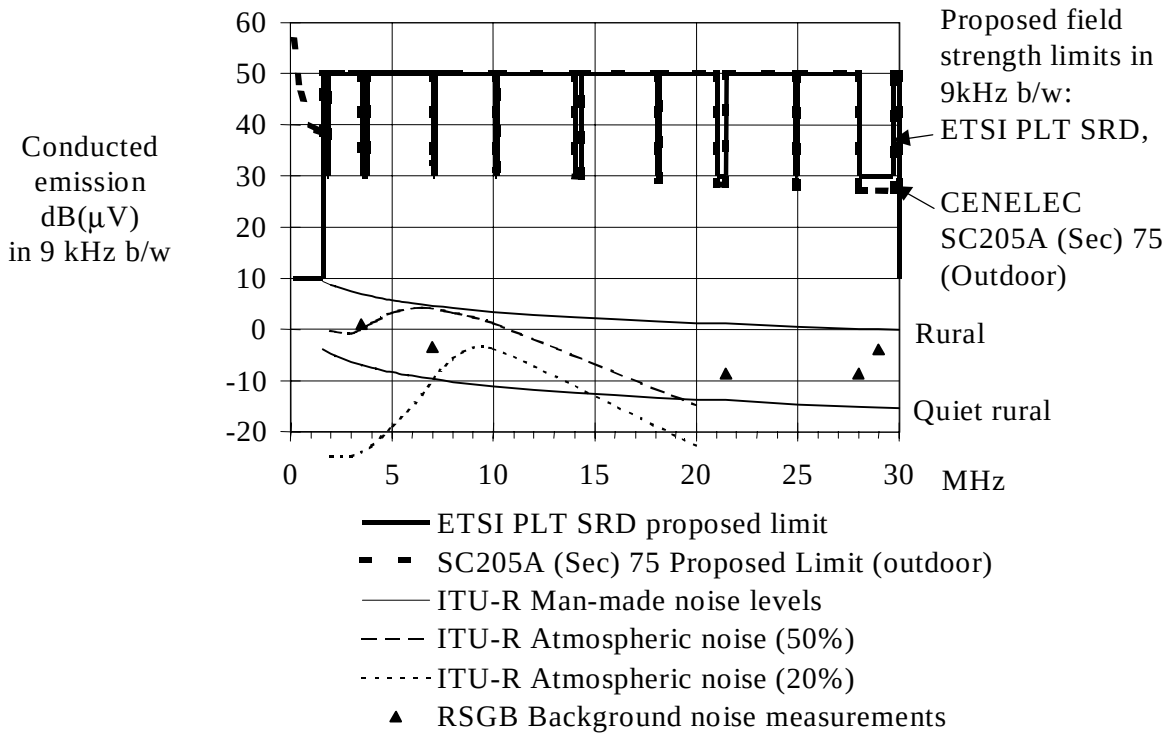

Fig 1. The proposed radiated limits from the draft ETSI PLT SRD and CENELEC SC205A (Sec)75 in relation to background noise levels at frequencies up to 30 MHz.

The draft ETSI PLT SRD also specifies a maximum PSD that PLT systems may transmit into the mains power network. This limit is -40 dBm/Hz outside the 'notches', which is equivalent to -0.5 dBm in 9 kHz bandwidth or 106.5 dB(µV) in 50 Ω. Fig 2 shows the proposed conducted emission levels in relation to the EN 55022 Class 'B' conducted emission limits.

Another ETSI document, TS 101867 includes information on the average 'noise floor' that may be expected on mains power distribution networks. This 'noise floor' has been converted to dB(µV) in 50 Ω in 9 kHz bandwidth and is also shown on Fig 2. The fact that this 'noise floor' falls by 20 dB from 1.6 - 30 MHz indicates that ***in practice, the conducted noise level on typical mains power distribution networks is far below the EN 55022 'B' limit over much of the HF band.***

This result is consistent with measurements of radiated emissions generated by typical electronic equipment such as switch-mode power supplies. Such emissions may be within a few dB of the EN 55022 'B' limit at frequencies below 1 - 2 MHz but are normally far below the EN 55022 Class 'B' limit in the higher parts of the HF band.

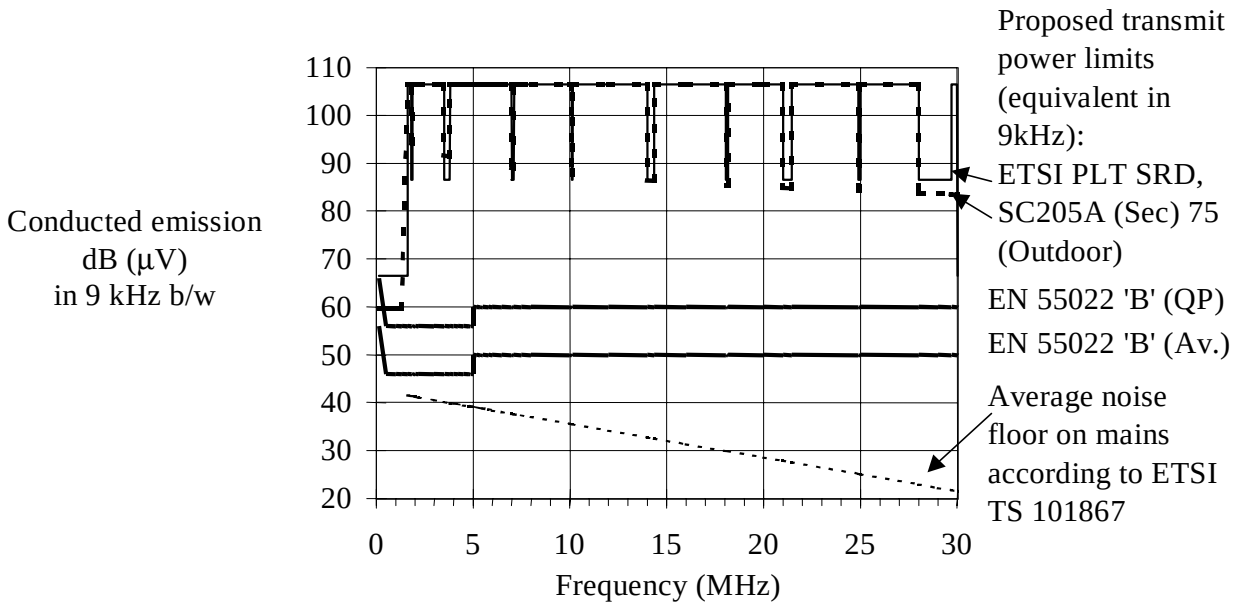

Fig 2. The proposed PLT transmit power limit from the ETSI PLT SRD and CENELEC SC205A (Sec) 75 in relation to EN 55022 Class 'B' conducted emission limits and background noise levels on mains power networks at frequencies up to 30 MHz.

The RSGB EMC Committee considers that intentional emissions such as PLT should be limited to a ***lower*** limit than the EN 55022 'B' limit for the following reasons:

- Limits such as the EN 55022 'B' limit are intended to protect radio services from interference due to unintentional emissions from randomly distributed items of equipment that are used intermittently. In practice, emissions from such equipment normally decrease with frequency and even if they are close to the limit at 0.5 MHz, they are normally ***well below*** the EN 55022 Class 'B' limit at 3 - 5 MHz and above.

- In PLT systems, the emission is intentional and is likely to be close to applicable limit. The emission may be produced continuously and there may be a high density of PLT systems in a given area.

- If PLT is subjected to a higher limit than EN 55022 Class 'B', there would then be pressure to relax the EN 55022 Class 'B' limits. If this were accepted, the existing noise floor level on mains wiring would be raised, preventing PLT from operating as intended and protection of the radio spectrum below 30 MHz would effectively be abandoned.

PLT is a cabled distribution system and should therefore be subject to limits that are no higher than those for other cable distribution systems such as cable television networks. Even the cable TV emission limits are considered too high because they were not intended for broad band multi-carrier modulation techniques. It is therefore considered that intentional broad band emissions from PLT in amateur bands should not exceed 0 dB(µV/m) in 9 kHz bandwidth at a distance of 10 m.

7 SUMMARY

- Proposed PLT radiated emission levels are in direct contravention of the EC EMC Directive 89/336/EEC and UK Statutory Instrument 1992 No. 2372, The Electromagnetic Compatibility Regulations.

- PLT Emissions in the radio spectrum cannot be confined to the mains power distribution cables.

- Interference signals can be radiated over considerable distances, with the potential to affect vital ‘Safety of Life’ and other essential radio communications.

- The proposed system may suffer interruption or degradation due to insufficient immunity form interference from permitted radio transmitters.

8 RECOMMENDATION

The Radio Society of Great Britain raises a very robust objection to the current commercial proposals for PLT in the High Frequency spectrum. The Society will take all measures open to it to oppose the introduction of mains HF signalling. The RSGB considers that serious degradation of an important part of the HF spectrum is of far greater international importance than the short term commercial benefit of PLT.

The Radio Society of Great Britain recommends that all proposals for standards that would allow PLT to operate in the High Frequency spectrum be firmly rejected unless the signal levels are within the existing standards for mains conducted emissions or unless a specific frequency allocation is made for PLT that is compatible with radio services in the HF band.

9 REFERENCES

[1] RegTP (Regulierungsbehörde für Telekommunication und Post) Measurement Specification RegTP 322MV05. 'Radio Monitoring and Inspection Service Measurement Specification for Disturbance Field Measurements on Telecommunications Equipment and Lines in the Frequency Range from 9 kHz - 3 GHz'

[2] 'Abschlussbericht zur Power-Line Studie'. This is the final report dated 27-Jan-2000 on a comprehensive study of the EMC characteristics of low voltage mains distribution networks by the Technical University of Dresden (in German). It includes balance and coupling factors.
http://www.regtp.de/tech_reg_tele/start/in_06-03-02-03-00_m/index.html

The RSGB EMC Committee. 21 February 2001.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
12.04.2001

EC drafts Mandate addressed to CEN, CENELEC and ETSI for EMC Standardisation of Telecommunications Networks

1. Reminder

EUROCOM Newsletter 0501 of 06.03.2001 circulated our report on the PLCforum Workshop hosted by the European Commission, Brussels March 5th, 2001.

In his conclusion, chairman Mark Bogers observed that many different workgroups are trying to fix the PLT issue. To solve the problem, the EC could decide to deliver an explicite mandate to one body, CENELEC being the best positioned.

2. EC Mandate

9 April 2001, EC Enterprise Directorate General drafted a Standardisation Mandate addressed to CEN, CENELEC and ETSI for EMC Standardisation of Telecommunications Networks.

The standards should cover the types of networks, which are currently operational or which are under development, including, but not limited to those using power lines, coaxial cables and classical telephone wires.

The Commission are looking for comments by 15 May 2001, and it seems likely that they will present the draft mandate for agreement to the 98/34 Committee (the EC body delivering mandates) at the end of June 2001.

CEN, CENELEC and ETSI will provide by [*date of mandate + 6 months*] a programme with the standards that will cover the mandate and the target date for their availability.

3. Mandate Text

The text of the draft Mandate is hereto appended.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex 1

EUROPEAN COMMISSION
ENTERPRISE DIRECTORATE-GENERAL
Conformity and standardisation, new approach, industries under new approach
Mechanical and electrical equipment (including telecom terminal equipment)

DRAFT STANDARDISATION MANDATE ADDRESSED TO CEN, CENELEC AND ETSI CONCERNING ELECTROMAGNETIC COMPATIBILITY (EMC)

TELECOMMUNICATIONS NETWORKS

Draft (v 1.1)

1 Title

EMC harmonised standards for telecommunication networks.

2 Content

This mandate concerns the preparation of harmonised standards covering EMC aspects of wire-line telecommunication networks and their in-house extensions. These standards should cover the types of networks, which are currently operational or which are under development, including, but not limited to those using power lines, coaxial cables and classical telephone wires.

3 Legal basis

This is a standardisation mandate within the framework of Directive 89/336/EEC on the approximation of the laws relating to EMC[1].

4 Previous mandates

The following mandates have been issued to CEN, CENELEC and ETSI requesting the production of harmonised standards under Directive 89/336/EEC:

BC-T-353	Development of harmonised standards for telecommunication terminal equipment, satellite earth station equipment and radiocommunication equipment
BC/CLC-03/88	Development of EMC product standards
BC/CLC-02/92	Supplementing BC/CLC-03/88
BC/CLC/03/0000/98-3	Supplementing BC/CLC-02/92
BC-IT-82	EMC aspects of IT and Telecommunications equipment
M/038	Supplementing BC-IT-82 by introducing the concept of harmonised standard in the context of the New Approach
M/282	Aircraft and aeronautical equipment

[1] Where (sub-)networks are terminal equipment in the sense of Directive 1999/5/EC, the standards will also be recognised as harmonised standards under that Directive.

5 Description of the mandate

Since the entry into force of the EMC Directive, a number of harmonised standards have been produced covering the electromagnetic compatibility of electrical and electronic appliances. No harmonised standards, however, have been developed covering the electromagnetic compatibility of fixed installations, such as, for instance, telecommunication networks. While this situation so far may have been satisfactory, such installations increasingly cause interference to radio applications and are being interfered with. Several workshops, organised by the European Commission during the years 2000 and 2001, with wide participation of industry and regulators, have highlighted this situation.

Harmonised standards for telecommunication networks would simplify the application of the EMC Directive to all parties involved and provide a level playing field, as far as EMC is concerned, for the development of new telecommunication technologies.

Therefore, the European Commission requests CEN, CENELEC and ETSI:

- to prepare and adopt harmonised standards covering the electromagnetic compatibility requirements (emission and immunity) for telecommunication networks using:
    - power lines
    - coaxial cables
    - telephone wires (e.g. using xDSL technology)
- to consider the feasibility of harmonised standards covering the electromagnetic compatibility requirements (emission and immunity) for other types of telecommunication networks, and, when pertinent, to prepare and adopt such harmonised standards.

These harmonised standards shall lay down the limits and the test methods needed to allow presumption of conformity with the essential requirements of Directive 89/336/EEC. They should take into account, whenever possible, existing European and international technical specifications already developed in this area (for instance, the values defined in Germany's NB 30 or the United Kingdom's enforcement standard MPT 1570).

These standards should, be coherent with generic standards. They should take into account any other harmonised standards (produced under either Directive 89/336/EEC or Directive 99/5/EC) relating to the electromagnetic compatibility of equipment to be connected to the networks.

The standards produced under this mandate should form a comprehensive, technology-neutral set. A coherent approach, in particular in terms of electromagnetic emission, must be sought.

6 Execution of the mandate

The Commission hereby entrusts CEN, CENELEC and ETSI this mandate.

CEN, CENELEC and ETSI will provide by [*date of mandate + 6 months*] a programme with the standards that will cover the mandate and the target date for their availability.

CEN, CENELEC and ETSI are, at regular intervals, to inform the European Commission, which in turn will inform the Committee established under Directive 98/34/EC, of any new draft standard covered by this mandate.

Within six months of their adoption, the European standards produced under this mandate are to be transposed into national standards, and the conflicting national standards are to be withdrawn from the catalogues of the EU national standards organisations. CEN, CENELEC and ETSI will provide the Commission with the titles of the standards in the Community languages.

CEN, CENELEC and ETSI are advised to coordinate their activities with the relevant European or international bodies.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter

28.05.2001

EUROCOM SRWG 2000 ACTIVITY REPORT

presented to the

IARU Region 1 Executive Committee April 2001

1. European Union's Telecommunications Policy

In 1998, the Member States were urged by the European Commission to sustain and develop a policy offering an affordable access to telecommunication services and to the Internet for all citizens. Our annual activity report for the year 1999 covered the first steps of the European Commission in implementing this policy.

Several proposals and comments related to telecommunications had been issued in 1999:

COM (1999) 337 Proposal for a Regulation of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data by the institutions and bodies of the Community and on the free movement of such data

COM (1999) 427 Amended proposal for a European Parliament and Council Directive on certain legal aspects of electronic commerce in the Internal Market

COM (1999) 626 Opinion of the Commission pursuant to Article 251(2) (c) of the EC Treaty, on the amendments of the European Parliament to the Common Position of the Council regarding the Proposal for a Directive of the European Parliament and of the Council on a Community Framework for electronic signatures

COM (1999) 745 Proposal for a Decision of the European Parliament and of the Council extending Decision No 710/97/EC on a co-ordinated authorisation approach in the field of satellite personal communication services in the Community

The Commission also issued Communication *COM(1999)539* to prepare a New Regulatory Framework and in the year 2000 a series of Directives were drafted under the heading **Telecommunications Regulatory Package:**

COM (2000) 0384 Proposal for a Directive of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and associated facilities

COM (2000) 0385 Proposal for a Directive of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector

COM (2000) 0386 Proposal for a Directive of the European Parliament and of the Council on the authorisation of electronic communications networks and services

COM (2000) 0386S Communication from the Commission to the European Parliament pursuant to the second subparagraph of Article 251 (2) of the EC-Treaty concerning the Council common position on the proposal for a Directive on certain legal aspects of Information Society services, in particular electronic commerce, in the Internal Market ("Directive on Electronic Commerce")

COM (2000) 0392 Proposal for a Directive of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services

COM (2000) 0393 Proposal for a Directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services

COM (2000) 0394 Proposal for a Regulation of the European Parliament and of the Council on unbundled access to the local loop

COM (2000) 0761 Amended proposal for a Regulation of the European Parliament and of the Council on unbundled access to the local loop

COM (2000) 0407 Proposal for a Decision of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community

Note: Not all these documents are necessarily important to the amateur radio service, but from experience we know, that sometimes an important issue is hidden in the most unexpected corner of all these legislative texts. Therefore, we do the effort of reading as much as possible legislative drafts which could be related to radio. We also asked several persons within Region 1 if they were interested in reading these texts, but there was little response.

The task is not limited to looking at the proposals, for these are examined by Parliamentary Committees. For the telecommunication proposals, the main committee is the Committee on Industry, External Trade, Research and Energy (ITRE). A rapporteur drafts a Report and Amendments are filed and discussed. Once the Committee agrees on the Report, it is submitted to the plenary of the Parliament.

The bulk of the parliamentary work is done in the committees. In committee reports and amendments, positions sometimes appear all of a sudden, with negative (side)effects on amateur radio. It is still time then to suggest an amendment to a friendly Member of the European Parliament (MEP), willing to file it.

Therefore, scrutinizing the parliamentary work in the committees is most important. In Brussels, a community of 375 million citizens are writing their law. Quite a market for legislative relations consultants.

2. Radio Spectrum Policy

18/05/2000, the Plenary of the European Parliament adopted a resolution on the Commission communication on "Next Steps in Radio Spectrum Policy - Results of the Public Consultation on the Green Paper" (COM(1999) 538).

The amendment we prepared, insisting on the need of sufficient frequency bands to be kept available for use by the Amateur Radio licensees, had been accepted. Items 8. and 9. of the resolution read as follows :

8. *Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for use by public and private broadcasting and by* ***amateur radio licensees****, as well as for passive uses, such as earth observation and radio astronomy;*

9. *Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use;*

MEP Fernando Fernandez-Martin (EA8AK) has been instrumental in filing this amendment.

12.07.2000 the European Commission published document COM(2000)407, bearing the proposal for a Decision of the European Parliament and of the Council on a **Regulatory Framework for Radio Spectrum Policy** in the European Community.

The purpose of this decision shall be to create a policy framework to address the strategic planning and harmonisation of the use of radio spectrum in the Community. A procedural framework shall be created.

The content of this proposal has been commented in EUROCOM Newsletters.

ITRE rapporteur for Resolution COM(2000)407 Mrs Niebler has not yet published her Report.

3. Regulatory Framework for electronic communications networks and services

In EUROCOM Newsletter of 23.12.2000, we commented proposal COM(2000)393 and the ITRE draft Report of MEP Reino Paasilinna.

An amendment of article 2 was justifed like this : *The use of power lines for carrying communication services such as medium speed internet is not yet operational, but it is very likely that it will become a reality at the moment when the new framework enters into force.*

An amendment of article 15 stated that the Commission should remove standards and/or specifications that hamper the implementation of technological evolution**.**

Ha-Jo Brandt, DJ1ZB suggested that EMC standards should be exempted from the scope of this article.

We submitted this suggestion to MEP Fernando Fernandez-Martin (EA8AK) who filed an amendment adding a paragraph to article 15, stating : *6 a. The provisions of paragraphs 5 and 6 do not apply to electromagnetic compatibility standards listed in the Official Journal of the European Communities.*

The amendement was justified as follows : *Electromagnetic compatibility standards ensure the best possible coexistence between different technologies, services and equipment. Their amendment or withdrawal should remain the task of the European standardisation bodies.*

The amendment was adopted by ITRE. Before being submitted to the plenary of the EP, the text was slightly revised. The voting in the plenary has not yet taken place.

4. ECCA

Digital telecommunications on shielded cables (CATV) and twisted wires (telephone) use conducted radio waves to convey information. Radiation is unavoidable and can produce harmfull interference to radio services.

The European Commission hosted an ECCA (European Cable Communications Association) workshop on compatibility problems between coaxial cable systems and radiocommunication services, chaired by Thormod Boe (LA7OF), Director, CEPT ERC's European Radiocommunications Office (ERO).

Answering a question, chairman Boe explained that amateur radio is an ITU recognized radio service, having the same rights and the same duties as any other radio service.

5. PLT

Power Line Telecommunications intend to use the existing electrical power grid for telecommunication purposes. *Internet on the mains* is the goal.

The system uses HF carriers to convey digital information. Power wires are unshielded and symmetry is poor. Field measurements on test sites in the UK and in Germany showed substantial HF radiation.

EUROCOM Newsletters of 18.08.1999, 13.09.1999 and 17.01.2000 reviewed PLT development. CEPT / ERC SE (Spectrum Engineering) and FM (Frequency Management) are involved in studying the possible implementation of PLT. ETSI and CENELEC have also PLT working groups.

A DARC document on PLT was appended to the EUROCOM Newsletter of 23.12.2000.

The European Commission hosted a workshop on PLT, chaired by Mark Bogers, DG Enterprise. We expressed our concern and were invited to present the amateur radio position to the workshop. Hilary Claytonsmith, G4JKS, who has gained experience opposing PLT in the UK, accepted to do a presentation on "The HF Spectrum and Broadband Networking".

We urged the EUROCOM correspondents to alert responsable services and representatives of the HF spectrum user groups (NRA's, Military, Broadcasters, Aviation Security Services, etc) and circulated the agenda and the registration form of the workshop.

Our report on the PLT workshop has been circulated by EUROCOM Newsletter of 06.03.2001. Hilary did an excellent job. Her presentation of the radio amateurs' viewpoint was warmly welcomed. Her questions and her answers during the panel session attested a solid knowledge of EMC issues. The invitation by the European Commission to present the amateur radio viewpoint to a EC hosted workshop was a first. EUROCOM consolidated its position as a technically valuable partner on the European Union scene.

6. EUROCOM meeting

A EUROCOM meeting was held at “Ham Radio 2000” in Friedrichshafen 23/24 June 2000.

The meeting extended over two days and 31 delegates participated. Distinguished participants were IARU President Larry Price, W4RA and IARU Region 1 President Lou van de Nadort, PAoLOU .

7. EUROCOM Newsletters

In the year 2000, 11 Newsletters were circulated, 6 with documents appended.

We appreciate DARC to publish the EUROCOM Newsletters on their "External Relations" webpage.

Moreover, the complete series of EUROCOM Newsletters, covering the working group's activity since it was created in 1990, is edited on CD by DARC's External Relations officer Hans Berg, DJ6TJ.

8. Thanks

We are very grateful to MEP Fernando Fernandez-Martin, EA8AK for filing amendments to parliamentary documents for the defense of amateur radio.

We are grateful to DARC for kindly hosting the EUROCOM meeting.

Many thanks to Hans Berg, DJ6TJ for taking care of publishing the EUROCOM Newsletters.

Many thanks to Ha-Jo Brandt, DJ1ZB for his technical assistance.

Many thanks to Hilary Claytonsmith, G4JKS for her presentation to the PLT workshop.

We also appreciate the tokens of interest and encouragement we received for work done in the European Union's field of activity.

Respectfully submitted to the IARU Region1 Executive Committee

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter
09.06.2001

EUROCOM WG meeting at Ham Radio in Friedrichshafen

I. Invitation

A EUROCOM WG meeting will be held on **Saturday 30.06.2001 at 13:00** in the administration building, Messe GmbH, 1st floor (Konferenzsaal) in Friedrichshafen.

Member societies are kindly invited to delegate their representative(s) to this meeting.

II. Agenda

1. Welcome and roll call
2. Appointment of secretary
3. Approval of agenda
4. Review of ongoing events (ON4WF)
5. To develop a strategy against PLC (DK 9HU, OZ8CY, G4JKS, ON4WF)
6. All other business
7. End of meeting (18:00h)

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter

08.06.2001

Regulatory Framework for Radio Spectrum Policy in the European Community

1. History

Appended to EUROCOM Newsletter of 14.07.2000 was the text of document COM(2000)407, bearing the proposal for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community.

This proposal was commented in annex 1 of the EUROCOM Newsletter of 20.07.2000 and in EUROCOM Newsletter of 23.12.2000.

CONTENT : this proposal seeks to complement the spectrum management activities of the International Telecommunications Union/World Radiocommunications Conference (ITU/WRC) and the European Conference of Postal and Telecommunications administrations (CEPT) and of the Member States.

The purpose of this proposal for a Decision is to create a policy framework to advise the Commission on market, technological and international developments impacting on the use of radio spectrum in the areas of communications, broadcasting, transport and R&D Community policies.

The main objectives of the proposal are to:
- to create a senior Official Spectrum Policy Group which should advise the Commission on the need to harmonise the use of radio spectrum in relevant Community policy areas;
- to provide for a legal Community framework to ensure effective implementation of radio spectrum with the assistance of a Radio Spectrum Committee;
- to ensure coordinated and timely provision of information on radio spectrum use and availability in the Community;
- and to safeguard Community interest in international trade and radiocommunications negotiations.

The proposal was referred to the Committee on Industry, External Trade, Research and Energy (ITRE). MEP Angelika Niebler was appointed rapporteur for this proposal.

2. ITRE Draft Report

MEP Niebler published her draft Report on the proposal, which was filed on the 28-29 May 2001 ITRE session for consideration.

The draft Report amended Article 3 (see text in bold characters).

Amendment 9
Article 3
Senior Official Radio Spectrum Policy Group

With a view to the strategic planning and harmonisation of use of radio spectrum in the Community, the Commission shall be assisted by a consultative group to be called the Senior Official Radio Spectrum Policy Group.

The Group shall be composed of senior representatives from the Member States and a representative of the Commission, and shall meet at least twice a year under the chairmanship of the representative of the Member State holding the Council Presidency. The Group's secretariat shall be provided by the Commission.

The Commission shall forward to Parliament the agendas for the respective forthcoming meetings, decisions adopted, results of votes and minutes of previous meetings, as well as the list of participants. Parliament shall be authorised to send to meetings of the Group three observers, who shall report to Parliament on an ongoing basis on the work in progress.

The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities and citizen representatives affected by or requiring the use of radio spectrum in the Community and in the rest of Europe.

3. Amateur Radio Amendment

We drafted a new amendment tending to assure the amateur radio service to be consulted by the Senior Official Radio Spectrum Policy Group. MEP Fernando Fernandez-Martin (EA8AK) accepted to file this amendment.

Amendment 24, by Fernando Fernández Martín
Article 3, paragraph 3

The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities affected by or requiring the use of radio spectrum in the Community and in the rest of Europe.	The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities affected by or requiring the use of radio spectrum in the Community and in the rest of Europe. ***Representatives of the radio amateur service within Article S1.56 and of the amateur-satellite service within article S1.57 of the International Telecommunications Union (ITU) radio regulations shall be consulted in any case.***

Justification

The International Telecommunications Union defines spectrum segments for the radio amateurs on a worldwide basis. Early consultation of representatives of the International Amateur Radio Union (IARU) is a proper way to ease spectrum management.

This draft amendment was part of a series of amendments published by the European Parliament 7 June 2001, numbered PE 286.136/11-38.

4. Further developments

Discussion of the draft amendments has not yet been tabled on the agenda of the ITRE meetings.

We will keep you informed of further developments in this area.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter
09.06.2001

EUROCOM WG meeting at Ham Radio in Friedrichshafen

I. Invitation

A EUROCOM WG meeting will be held on **Saturday 30.06.2001 at 13:00** in the administration building, Messe GmbH, 1st floor (Konferenzsaal) in Friedrichshafen.

Member societies are kindly invited to delegate their representative(s) to this meeting.

II. Agenda

1. Welcome and roll call
2. Appointment of secretary
3. Approval of agenda
4. Review of ongoing events (ON4WF)
5. To develop a strategy against PLC (DK 9HU, OZ8CY, G4JKS, ON4WF)
6. All other business
7. End of meeting (18:00h)

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter

14.06.2001

Joint EUROCOM & EMC WG meeting
Ham Radio Friedrichshafen

I. Invitation

EUROCOM and EMC WG chairs decided on a common meeting to be held on **Saturday 30.06.2001 at 13:00** in the administration building, Messe GmbH, 1st floor (Konferenzsaal) in Friedrichshafen.

Member societies are kindly invited to delegate their representative(s) to this meeting.

II. Agenda

1. Welcome and roll call
2. Appointment of secretary
3. Approval of agenda
4. Review of recent developments in the EU (ON4WF)
5. To develop a strategy against PLC
   - PLC status in Germany (DJ1BD)
   - Status report from ITU, CEPT, CISPR, CENELEC, ETSI (OZ8CY, DJ1ZB)
   - Strategic plan (DK9HU)
6. Electromagnetic fields regulation (OZ8CY)
   - See earlier distributed doc. from PA3AVV
   - Status report from CENELEC, ETSI and IEC
7. Standardisation issues (OZ8CY)
   - EN55024, immunity of telephones
   - EN55020, immunity of radio and TV etc.
   - CISPR H input, database over protection needs for radio services.
   - Status report from the CISPR meeting
8. Any other business
9. End of meeting (17.30h)

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Christian Verholt, OZ8CY
EMC chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter

25.09.2001

1. Regulatory Framework for electronic communications networks and services

EUROCOM Newsletters of 23.12.2000, 26.01.2001 and 07.02.2001 commented proposal COM(2000)393 for a directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

In an article on Standardisation, the proposal stated the possibility for the European Commission *to remove standards considered as no longer contributing to harmonised electronic communications services or hampering the implementation of technological evolution.*

An Amendment to the draft Report of rapporteur Paasilinna had been filed by MEP Fernando Fernandez-Martin, EA8AK and two of his colleagues to preserve EMC standards, confirming the task of the European standardisation bodies to ensure the best possible coexistence between different technologies, services and equipment.

This amendment had been adopted by the Committee on Industry, External Trade, Research and Energy. Later on, it was also adopted by the Plenary of the European Parliament.

The Amendment completed Article 15 on Standardisation, stating that:

> 6 a. The provisions of paragraphs 5 and 6 do not apply to electromagnetic compatibility standards listed in the Official Journal of the European Communities.

In accordance with the EU legislation, the amended proposal has been submitted to the conciliation procedure. The Council has adopted a Common Position on 17 September 2001. The above mentioned amendment has been extended and is now included in Article 16 on Standardisation:

> 7. This Article does not apply in respect of any of the essential requirements, interface specifications or harmonised standards to which the provisions of Directive 1999/5/EC apply.

Directive 1999/5/EC is the R&TTE Directive which refers to the EMC Directive.

The Common Position has been submitted to the President of the European Parliament.

2. Regulatory Framework for Radio Spectrum Policy in the European Community

EUROCOM Newsletters of 14.07.2000, 20.07.2000, 23.12.2000 and 08.06.2001 commented the introduction of a Regulatory Framework for Radio Spectrum Policy in the European Community.

The text submitted to the European Parliament proposes the creation of a Senior Official Radio Spectrum Policy Group. *This Group shall consult, as it may deem appropriate, representatives from the various sectors of activities affected by or requiring the use of radio spectrum in the Community and in the rest of Europe.*

An Amendment had been filed by MEP Fernando Fernández Martín to the draft Report of rapporteur Angelika Niebler, stating:

Representatives of the radio amateur service within Article S1.56 and of the amateur-satellite service within article S1.57 of the International Telecommunications Union (ITU) radio regulations shall be consulted in any case.

This amendment has not been adopted. Consequently, when the Radio Spectrum Policy Directive will be in force, we shall have to monitor even more carefully the initiatives of the European Commission on matters related to the use of the Radio Spectrum in order to preserve the Amateur Radio service.

3. PLC et alia

Sub Working Group SE35 of CEPT ERC is preparing a draft CEPT/ERC Recommendation on radiation limits for all kinds of cable telecommunications networks (PLC, xDSL, CATV and LANs). The chairman of SE35 has given the radio services the opportunity to express their views by introducing an informal chapter on "non-administrations views".

IARU Experts are of the opinion, that any additional noise from the radiation of telecommunication networks should be as low as possible above the natural noise level. The original UK limit of 0dBuV/m in a 10 m distance comes very close to the needs of the radio amateurs.

Chris Verholt, OZ8CY EMC WG Chairman forwarded a message to the SE35 Chairman on behalf of the IARU, supporting a radiation limit of 0dBuV/m in a 9 kHz bandwidth measured at a 10 m distance.

Moreover, we asked the IARU member societies within the European Union to mail a message with the same content to the SE35 Chairman.

The time limit to do so was very short. In 3 days time, 10 societies mailed the message.

We extend our special thanks to DARC, EDR, RL, RSGB, NRRL, REF, SSA, UBA, URE and VERON for this significant contribution.

To register such a co-ordinated effort at so short notice is most gratifying and augurs well of the spirit of co-operation of the IARU societies within the European Union.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter

2.11.2001

Minutes of the Joint EUROCOM/EMC working groups meeting
Friedrichshafen 30th June 2001

1. **In Attendance**: DL3LAE, SM0SMK, CT1DW, SP2DX, DL2SB, PA7FF, PA1LK, PA0GMM, PA0GJH, LX1MA, PA0LOG, LA2RR, OH2BU, OZ8YC, OZ8CY, HA5EA, G0TWW, G3BY and G4JKS. Apologies, Nil
2. **Appointment of Minutes Secretary**.
   Peter Kirby, G0TWW. RSGB General Manager agreed to take the minutes.
3. **Approval of Agenda.** The previously circulated agenda was approved with the addition of some breaking news from Switzerland on the introduction of Power Line Technology which was taken as Agenda Item 3.1.

3.1 PLT (Switzerland) Diethard Hansen, DK2VQ/HB9CVQ spoke to the meeting on the work he had undertaken in assessing the interference of a PLT installation in Switzerland. Volunteers from the USKA had assisted him in this work. Results of these tests had proved that the installation was operating to a level, which produced an interference level 10 dB above the German NB30 limits. This item provoked much discussion, much of it centred around Societies being prepared to provide interference measurement data to their respective administrations. Although this action was generally supported, the consensus of opinion amongst the delegates was that administrations would not readily accept measurement data from the amateur community. Hilary Claytonsmith, G4JKS advised the meeting that within the UK the RSGB had been successful through negotiation in getting the Radiocommunications Agency (the UK administration) to carry out the measurements. The meeting agreed to take further discussions on the PLT issue under Agenda item 5.

4. **Review of recent EU developments.** Gaston Bertels, ON4WF Chairman of the IARU Region 1 EUROCOM srwg opened by reminding all in attendance that all EUROCOM Newsletters can be downloaded from the DARC Website. He thanked Hans Berg, DJ6TJ for his efforts in preparing the Newsletters for distribution.

   He then went on to speak to his previously circulated EUROCOM Newsletter dated the 28.5.01, explaining in some detail to the meeting how the European Parliament and Commission worked. He highlighted one particular item, the proposal from the European Parliament to regulate Radio Spectrum Policy within the EU.

   The aim of this policy is to harmonise the use of the radio spectrum in the EU in the range from 9kHz – 3000GHz. The Foundation of this policy was laid in early 1999, with the publication for public consultation of COM (1999) 538. At a meeting of all interested parties held in Brussels in March 2000, EUROCOM on behalf of the EUROCOM Societies submitted a paper insisting on the need of

sufficient frequency bands to be kept available for use by the Amateur Radio Community.

In May 2000, the Plenary of the European Parliament adopted a resolution of the Commission on "Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper" (COM (1999) 538. Item 8 and 9 of the resolution now reads as follows:

8. *Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for public and private broadcasting and by amateur radio licensees, as well as for passive users, such as earth observation and radio astronomy;*
9. *Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use.*

We have to be grateful to MEP Fernando Fernandez-Martin (EA8AK) who was instrumental in filing this amendment on behalf of EUROCOM.

A Proposal for a decision of the European Parliament and the Council on a Regulatory Framework for Radio Spectrum Policy has been submitted to the European Parliament (COM (2000) 0407). A consultative group is to be set up. This will be known as the Senior Official Radio Spectrum Policy Group. The function of this group is to advise the EU commission on the implementation of Spectrum Policy, monitor the evolution of the Radio Spectrum, advise the Commission on Regulatory, International, Technical, Economic and Political developments affecting spectrum use. This group may consult, when it deems it is necessary, with user groups.

During the consultation process in Parliament, efforts were made by EUROCOM to get the Amateur Radio service mentioned in the text as a user group to be consulted on all spectrum matters. An amendment was filed by MEP Fernando Fernandez-Martin, but it was rejected.

5. To develop a common strategy against the introduction of Power Line Technology.

The meeting was reminded that Power Line Technology (PLT) is designed to use the existing electrical power grid for telecommunications. The aim is to provide broadband Internet access to every household across Europe. The system is designed to use HF carriers to convey digital information using unshielded power lines. Trials of the system in the UK and in Germany have shown substantial radiation and a rise in the noise floor level in the HF band below 10MHz

This has resulted in the band being almost totally unusable to low power operators and is of great concern to the amateur radio community.

In the UK, due to lobbying by the RSGB and other interested parties, initial success in highlighting the effects of PLT had resulted in Nortel dropping their interest in an early introduction of the system. However, the threat has now moved into Europe and most European governments including the UK government are still very enthusiastic to have the system introduced at the earliest opportunity.

The meeting then reviewed the paper submitted by Eric Lemke, DJ1BD on the effect of PLT in Germany. What was of concern was the adoption by the German Regulatory Authority – RegTP of NB30, which allows higher interference levels than older already adopted standards. The adoption of this standard gives the green light for the use of PLT in Germany. What is also of concern was the number of bodies with an interest in the technology and the apparent lack of

coordination between these bodies in setting the standards for the introduction of PLT.

The meeting agreed that it was vitally important that the amateur community within Europe join together to formulate a common policy to fight the introduction of PLT. The meeting also welcomed the recent IARU Region 1 Executive Committee initiative to appoint Karl Voegele, DK9HU, as the EC co-ordinator on PLT matters. The idea of a co-ordinated policy to fight the introduction of PLT was warmly supported by Hilary Claytonsmith, G4JKS. Hilary reminded the meeting that she had been warning Region 1 for a number of years of the threat that the introduction of PLT posed to amateur radio operation. She also stressed the need for fast coordinated action along the lines of that taken by the HF users in the UK if we were to be successful in overturning the threat.

There then followed a long discussion on the technical issues involved and what form the strategy should take. The following list of possible actions was agreed:

- Influence EU
- Influence National legislation
- Influence Standards
- Form HF user groups
- Influence telecommunications operators
- Influence manufacturers
- Influence CEPT and the ITU
- Develop a coordinated position and publish technical papers
- Distribute this information widely within the IARU
- Distribute information outside of the IARU and prepare threat presentation
- Societies to assist administrations in taking measurements on the effect of PLT
- Societies to inform all radio amateurs of the threat of PLT to amateur radio operation
- Draft a common letter of opposition to PLT
- Emphise the 'Human Rights' aspect of the effect of PLT on amateur radio operation
- Lobby EU and National members of Parliament
- Develop technical solutions

There were some concerns regarding some of the possible actions. Christian Verholt, OZ8CY was not convinced that direct action was the best line of attack. He felt that a slow campaign of informing user groups to the threat of PLT would achieve the best results.

It was suggested that the Essen Test Bed be used to get reliable measurements. It was generally felt that the cost of this exercise which was thought to be in the region of 15kDM (based on 5 man days at 3kDM per day) would be prohibitive.

The meeting fully supported and agreed that interference measurements should be carried out across Europe and that the results of these tests should be widely distributed to Governments, Administrations and Amateurs. However, the meeting did not reach a decision on how this was to be achieved.

In general the meeting fully supported the proposed list of actions and Christian Verholt, OZ8CY agreed to produce an action plan and circulate it before passing it to Karl Voegele, DK9HU as the EUROCOM/EMC WG input to the IARU Region 1 strategy policy against PLC and other technologies within ADSL or xDSL systems.

6. Electromagnetic fields regulation.

OZ8CY presented an overview of the EMF (electromagnetic field exposure on humans) activities. The draft IARU position on EMF developed by PA3AVV

received no negative comments and will be forwarded to the next IARU conference for approval.

7. Standardisation Issues.

The meeting was briefed on Standardisation issues by OZ8CY.

He advised that with regards to immunity standards for TV and Radio a new paper was being produced for comments and voting.

He further advised that the latest meeting of CISPR had recently taken place in London and that concerns were raised at the level of radio disturbance caused by xDSL. It was agreed that investigations should be carried out to establish whether the limits in CISPR 22 could be tightened adequately in order to stay in line with the main task of protection of radio services. A first step in this direction would be the removal of the relaxations preliminarily installed in CISPR 22 for telecommunications ports, in the frequency range 6 to 30 MHz .

8. Any Other Business.

The question was raised who is planning to input the EMC meeting in Poland. Christian Verholt, OZ8CY agreed to place a note for inputs in the EMC Newsletter.

Apart from inputs from DARC and the RSGB, the meeting noted a lack of papers and inputs from other EUROCOM Societies.

Short Range Devices (SRD's). The meeting noted that CEPT were reviewing a paper on SRD's which have no radio status up till now but would become a radio service with secundary status.

9. Closing the meeting

There being no further business Gaston Bertels, ON4WF closed the meeting at 1630. Thanking the delegates for their attendance and inputs and the DARC for hosting the meeting.

Christian Verholt, OZ8CY
EMC WG Chairman

Gaston Bertels, ON4WF
EUROCOM WG Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter

28.11.2001

Telecommunications Regulatory Package

1. Progress

Several legislative decisions, which are in the pipeline since more than two years, are near completion.

We have informed the amateur radio community on these processes, drawing attention to the proposals which could influence our service.

The legislative texts are presently examined by the European Parliament in second reading. November 27, 2001 the ITRE Committee adopted several Recommendations. We reproduce significant extracts of the latest amendments to the drafted Directive on Telecommunications Networks and to the drafted Regulatory Framework for Radio Spectrum Policy.

2. **RECOMMENDATION FOR SECOND READING** on the Council common position for adopting a European Parliament and Council directive on a common regulatory framework for electronic communications networks and services (Framework Directive)

(10420/1/2001 – C5-0415/2001 – 2000/0184(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Reino Paasilinna

Amendment 6
Article 2, letter (a)

(a) "electronic communications network" means transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, networks used for radio and television broadcasting, and cable TV networks, irrespective of the type of information conveyed;	(a) "electronic communications network" means transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, ***electricity cable systems, to the extent that they are used for the purpose of transmitting signals,*** networks used for radio and television broadcasting, and cable TV networks, irrespective of the type of information conveyed;

Justification

While such systems are not yet in use, a technological breakthrough during the lifetime of this Directive is to be expected.

3. **RECOMMENDATION FOR SECOND READING** on the Council common position with a view to the adoption of a decision of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)

(12170/1/2001 – C5-0490/2001 – 2000/0187(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Angelika Niebler

Amendment 4
Article 1, paragraph 3a (new)

(3a) The Commission shall submit any new Community policy initiative relating to radio spectrum to the European Parliament and Council. The proposal should include, inter alia, information on the impact of the envisaged policy on existing spectrum user communities as well as indications regarding any general radio frequency re-allocation that this new policy would require.

Justification

Where the Commission proposes new Community policy measures relating radio spectrum, the proposal shall include information on the impact on existing groups of radio spectrum users, and in particular information concerning whether rights to use spectrum may be withdrawn and made available to other groups of users (frequency re-allocation). This will mean radio spectrum policy decisions being adopted by the Council and Parliament in the basic act, whilst technical implementation will be left to be dealt with under the subsequent commitology procedure.

.....

EXPLANATORY STATEMENT

1. The primary aim of the decision on a regulatory framework for radio spectrum policy in the European Community is to provide a basis for improved coordination of Member States' radio spectrum policy at Community level. To that end, the Common Position of 12 October 2001 provides that the Commission is to be responsible for the adoption, under the commitology procedure, of technical implementing measures required to be taken in connection with decisions on Community policy which depends on radio spectrum.

2. Important reservations expressed by the European Parliament at first reading fail to be dispelled by the Common Position, which, in particular, does not clearly state that decisions on a matter as important from a social and economic point of view as radio spectrum policy should be adopted under legislative procedures and above all by elected representatives of the people. In particular, decisions regarding how limited radio spectrum should be allocated among the various groups of users should not be taken under the commitology procedure.

   The Common Position also does not refer to the division of powers between the Community and the Member States in the area of radio spectrum policy. It is necessary to state that EU action in relation to radio spectrum matters should be confined to services and applications with Community or European coverage which depend on radio spectrum.

   The Common Position does not, furthermore, mention in what form Parliament could be involved at the earliest possible stage in the shaping of radio spectrum policy.

3. As rapporteur, I have had the task, in discussions with the Council and more particularly with the Council Presidency and the Commission, of trying at the earliest possible stage to find compromises which both take

account of the reservations expressed by Parliament at its first reading and which are able to be supported by the Member States in the Council. As a result of these discussions, it has been possible to create a basis permitting the decision on radio spectrum to be adopted at the same time as directives specifically concerned with communications.

4. On condition that the Council officially signals its support for the proposed amendments, I recommend making only these amendments at second reading and foregoing any others.

5. In addition, the Council, the Commission and the European Parliament should, independently of this decision, conclude an interinstitutional agreement, pursuant to which Parliament would send observers to an expert group on radio spectrum matters set up on an informal basis by the Commission. This group would discuss all radio spectrum-related issues associated with the introduction of new Community policies which depend on radio spectrum.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM srwg Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter

17.12.2001

1. First Joint CPG EC Consultation Meeting with Industry in Preparation of WRC-2003

The CEPT Conference Preparatory Group (CPG) and the European Commission (EC) have jointly held a consultation meeting with industry and the interested public concerning the European preparations for the next World Radiocommunication Conference, which will take place in Caracas in June 2003, i.e. WRC-2003.

The consultation meeting was divided into 4 sessions covering the following topics:

- Navigation, Radionavigation-satellite and Radiolocation services;
- Mobile, Mobile-satellite and Space Science Services;
- Fixed, Fixed-satellite, Broadcasting-satellite services and HAPS;
- Other issues.

The "Other issues" session covered Maritime mobile, **amateur and amateur-satellite,** and broadcasting services in MF and **HF bands** *(WRC-03 Agenda Items 1.2, 1.7, 1.9, 1.10, 1.14, 1.23 and 1.36)*, presented by Pekka Lansman and Geoff Towler (CEPT coordinators).

The presentations that were made at the workshop can be found under the following URLs:
http://www.ero.dk/EROWEB/cpg/Workshop-1.htm
and at:
http://europa.eu.int/information_society/topics/telecoms/radiospec/radio/index_en.htm

The meeting was attended by 140 participants, half of which came from industry. The presentation on the amateur radio service RR revision produced no comments from the floor.

During coffeebreaks and at lunchtime, we had interesting talks with Civil Aviation and with NATO frequency management representatives, mainly on PLT issues.

The **second consultation meeting**, which is envisaged to take place in January 2003, will aim at

- presenting the draft European Common Proposals (ECPs) developed for WRC-2003, and
- discussing the draft ECPs with industry and the interested public so as to take their views into account in the finalisation of the ECPs.

2. European Council of Laeken, 14 and 15 December 2001

The European Council adopted the **Laeken Declaration** on the future of the European Union.

Let us quote some excerpts:

After fifty years of growth, the Union stands at a crossroads, a defining moment in its existence. The unification of Europe is near. The Union is about to expand to bring in more than ten new Member States, predominantly Central and Eastern European, thereby finally closing one of the darkest chapters in European history: the Second World War and the ensuing artificial division of Europe. At long last, Europe is on its way to becoming one big family, without bloodshed, a real transformation clearly calling for a different approach from fifty years ago, when six countries first took the lead.

...

The European Union currently has four Treaties. The objectives, powers and policy instruments of the Union are currently spread across those Treaties. If we are to have greater transparency, simplification is essential.

...

Thought would also have to be given to whether the Charter of Fundamental Rights should be included in the basic treaty and to whether the European Community should accede to the European Convention on Human Rights.

The question ultimately arises as to whether this simplification and reorganisation might not lead in the long run to the adoption of a constitutional text in the Union. What might the basic features of such a constitution be? The values which the Union cherishes, the fundamental rights and obligations of its citizens, the relationship between Member States in the Union?

...

In order to pave the way for the next Intergovernmental Conference as broadly and openly as possible, the European Council has decided to convene a Convention composed of the main parties involved in the debate on the future of the Union. In the light of the foregoing, it will be the task of that Convention to consider the key issues arising for the Union's future development and try to identify the various possible responses.

Per January 1st, 2002 the Euro coins and banknotes will be legal tender. At the same time, the heads of state of the 15 Member States adopted a Declaration bearing the very idea of a European Constitution, albeit in the form of a question.

The text of the Laeken Declaration is hereto appended. Recommended reading.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Merry Christmas and Happy New Year

Annex : 1

THE FUTURE OF THE EUROPEAN UNION
LAEKEN DECLARATION

I. EUROPE AT A CROSSROADS

For centuries, peoples and states have taken up arms and waged war to win control of the European continent. The debilitating effects of two bloody wars and the weakening of Europe's position in the world brought a growing realisation that only peace and concerted action could make the dream of a strong, unified Europe come true. In order to banish once and for all the demons of the past, a start was made with a coal and steel community. Other economic activities, such as agriculture, were subsequently added in. A genuine single market was eventually established for goods, persons, services and capital, and a single currency was added in 1999. On 1 January 2002 the euro is to become a day-to-day reality for 300 million European citizens.

The European Union has thus gradually come into being. In the beginning, it was more of an economic and technical collaboration. Twenty years ago, with the first direct elections to the European Parliament, the Community's democratic legitimacy, which until then had lain with the Council alone, was considerably strengthened. Over the last ten years, construction of a political union has begun and cooperation been established on social policy, employment, asylum, immigration, police, justice, foreign policy and a common security and defence policy.

The European Union is a success story. For over half a century now, Europe has been at peace. Along with North America and Japan, the Union forms one of the three most prosperous parts of the world. As a result of mutual solidarity and fair distribution of the benefits of economic development, moreover, the standard of living in the Union's weaker regions has increased enormously and they have made good much of the disadvantage they were at.

Fifty years on, however, the Union stands at a crossroads, a defining moment in its existence. The unification of Europe is near. The Union is about to expand to bring in more than ten new Member States, predominantly Central and Eastern European, thereby finally closing one of the darkest chapters in European history: the Second World War and the ensuing artificial division of Europe. At long last, Europe is on its way to becoming one big family, without bloodshed, a real transformation clearly calling for a different approach from fifty years ago, when six countries first took the lead.

The democratic challenge facing Europe

At the same time, the Union faces twin challenges, one within and the other beyond its borders.

Within the Union, the European institutions must be brought closer to its citizens. Citizens undoubtedly support the Union's broad aims, but they do not always see a connection between those goals and the Union's everyday action. They want the European institutions to be less unwieldy and rigid and, above all, more efficient and open. Many also feel that the Union should involve itself more with their particular concerns, instead of intervening, in every detail, in matters by their nature better left to Member States' and regions' elected representatives. This is even perceived by some as a threat to their identity. More importantly, however, they feel that deals are all too often cut out of their sight and they want better democratic scrutiny.

Europe's new role in a globalised world

Beyond its borders, in turn, the European Union is confronted with a fast□changing, globalised world. Following the fall of the Berlin Wall, it looked briefly as though we would for a long while be living in a stable world order, free from conflict, founded upon human rights. Just a few years later, however, there is no such certainty. The eleventh of September has brought a rude awakening. The opposing forces have not gone away: religious fanaticism, ethnic nationalism, racism and terrorism are on the increase, and regional conflicts, poverty and underdevelopment still provide a constant seedbed for them.

What is Europe's role in this changed world? Does Europe not, now that is finally unified, have a leading role to play in a new world order, that of a power able both to play a stabilising role worldwide and to point the way ahead for many countries and peoples? Europe as the continent of humane values, the Magna Carta, the Bill of Rights, the French Revolution and the fall of the Berlin Wall; the continent of liberty, solidarity and above all diversity, meaning respect for others' languages, cultures and traditions. The European Union's

one boundary is democracy and human rights. The Union is open only to countries which uphold basic values such as free elections, respect for minorities and respect for the rule of law.

Now that the Cold War is over and we are living in a globalised, yet also highly fragmented world, Europe needs to shoulder its responsibilities in the governance of globalisation. The role it has to play is that of a power resolutely doing battle against all violence, all terror and all fanaticism, but which also does not turn a blind eye to the world's heartrending injustices. In short, a power wanting to change the course of world affairs in such a way as to benefit not just the rich countries but also the poorest. A power seeking to set globalisation within a moral framework, in other words to anchor it in solidarity and sustainable development.

The expectations of Europe's citizens

The image of a democratic and globally engaged Europe admirably matches citizens' wishes. There have been frequent public calls for a greater EU role in justice and security, action against cross□border crime, control of migration flows and reception of asylum seekers and refugees from far□flung war zones. Citizens also want results in the fields of employment and combating poverty and social exclusion, as well as in the field of economic and social cohesion. They want a common approach on environmental pollution, climate change and food safety, in short, all transnational issues which they instinctively sense can only be tackled by working together. Just as they also want to see Europe more involved in foreign affairs, security and defence, in other words, greater and better coordinated action to deal with trouble spots in and around Europe and in the rest of the world.

At the same time, citizens also feel that the Union is behaving too bureaucratically in numerous other areas. In coordinating the economic, financial and fiscal environment, the basic issue should continue to be proper operation of the internal market and the single currency, without this jeopardising Member States' individuality. National and regional differences frequently stem from history or tradition. They can be enriching. In other words, what citizens understand by "good governance" is opening up fresh opportunities, not imposing further red tape. What they expect is more results, better responses to practical issues and not a European superstate or European institutions inveigling their way into every nook and cranny of life.

In short, citizens are calling for a clear, open, effective, democratically controlled Community approach, developing a Europe which points the way ahead for the world. An approach that provides concrete results in terms of more jobs, better quality of life, less crime, decent education and better health care. There can be no doubt that this will require Europe to undergo renewal and reform.

II. CHALLENGES AND REFORMS IN A RENEWED UNION

The Union needs to become more democratic, more transparent and more efficient. It also has to resolve three basic challenges: how to bring citizens, and primarily the young, closer to the European design and the European institutions, how to organise politics and the European political area in an enlarged Union and how to develop the Union into a stabilising factor and a model in the new, multipolar world. In order to address them a number of specific questions need to be put.

A better division and definition of competence in the European Union

Citizens often hold expectations of the European Union that are not always fulfilled. And vice versa - they sometimes have the impression that the Union takes on too much in areas where its involvement is not always essential. Thus the important thing is to clarify, simplify and adjust the division of competence between the Union and the Member States in the light of the new challenges facing the Union. This can lead both to restoring tasks to the Member States and to assigning new missions to the Union, or to the extension of existing powers, while constantly bearing in mind the equality of the Member States and their mutual solidarity.

A first series of questions that needs to be put concerns how the division of competence can be made more transparent. Can we thus make a clearer distinction between three types of competence: the exclusive competence of the Union, the competence of the Member States and the shared competence of the Union and the Member States? At what level is competence exercised in the most efficient way? How is the principle of subsidiarity to be applied here? And should we not make it clear that any powers not assigned by the Treaties to the Union fall within the exclusive sphere of competence of the Member States? And what would be the consequences of this?

The next series of questions should aim, within this new framework and while respecting the "acquis communautaire", to determine whether there needs to be any reorganisation of competence. How can citizens' expectations be taken as a guide here? What missions would this produce for the Union? And, vice versa, what tasks could better be left to the Member States? What amendments should be made to the Treaty on the various policies? How, for example, should a more coherent common foreign policy and defence policy be developed? Should the Petersberg tasks be updated? Do we want to adopt a more integrated approach to police and criminal law cooperation? How can economic-policy coordination be stepped up? How can we intensify cooperation in the field of social inclusion, the environment, health and food safety? But then, should not the day-to-day administration and implementation of the Union's policy be left more emphatically to the Member States and, where their constitutions so provide, to the regions? Should they not be provided with guarantees that their spheres of competence will not be affected?

Lastly, there is the question of how to ensure that a redefined division of competence does not lead to a creeping expansion of the competence of the Union or to encroachment upon the exclusive areas of competence of the Member States and, where there is provision for this, regions. How are we to ensure at the same time that the European dynamic does not come to a halt? In the future as well the Union must continue to be able to react to fresh challenges and developments and must be able to explore new policy areas. Should Articles 95 and 308 of the Treaty be reviewed for this purpose in the light of the "acquis jurisprudentiel"?

Simplification of the Union's instruments

Who does what is not the only important question; the nature of the Union's action and what instruments it should use are equally important. Successive amendments to the Treaty have on each occasion resulted in a proliferation of instruments, and directives have gradually evolved towards more and more detailed legislation. The key question is therefore whether the Union's various instruments should not be better defined and whether their number should not be reduced.

In other words, should a distinction be introduced between legislative and executive measures? Should the number of legislative instruments be reduced: directly applicable rules, framework legislation and non-enforceable instruments (opinions, recommendations, open coordination)? Is it or is it not desirable to have more frequent recourse to framework legislation, which affords the Member States more room for manoeuvre in achieving policy objectives? For which areas of competence are open coordination and mutual recognition the most appropriate instruments? Is the principle of proportionality to remain the point of departure?

More democracy, transparency and efficiency in the European Union

The European Union derives its legitimacy from the democratic values it projects, the aims it pursues and the powers and instruments it possesses. However, the European project also derives its legitimacy from democratic, transparent and efficient institutions. The national parliaments also contribute towards the legitimacy of the European project. The declaration on the future of the Union, annexed to the Treaty of Nice, stressed the need to examine their role in European integration. More generally, the question arises as to what initiatives we can take to develop a European public area.

The first question is thus how we can increase the democratic legitimacy and transparency of the present institutions, a question which is valid for the three institutions.

How can the authority and efficiency of the European Commission be enhanced? How should the President of the Commission be appointed: by the European Council, by the European Parliament or should he be directly elected by the citizens? Should the role of the European Parliament be strengthened? Should we extend the right of co□decision or not? Should the way in which we elect the members of the European Parliament be reviewed? Should a European electoral constituency be created, or should constituencies continue to be determined nationally? Can the two systems be combined? Should the role of the Council be strengthened? Should the Council act in the same manner in its legislative and its executive capacities? With a view to greater transparency, should the meetings of the Council, at least in its legislative capacity, be public? Should citizens have more access to Council documents? How, finally, should the balance and reciprocal control between the institutions be ensured?

A second question, which also relates to democratic legitimacy, involves the role of national parliaments. Should they be represented in a new institution, alongside the Council and the European Parliament? Should they have a role in areas of European action in which the European Parliament has no competence? Should they focus on the division of competence between Union and Member States, for example through

preliminary checking of compliance with the principle of subsidiarity?

The third question concerns how we can improve the efficiency of decision-making and the workings of the institutions in a Union of some thirty Member States. How could the Union set its objectives and priorities more effectively and ensure better implementation? Is there a need for more decisions by a qualified majority? How is the co-decision procedure between the Council and the European Parliament to be simplified and speeded up? What of the six monthly rotation of the Presidency of the Union? What is the future role of the European Parliament? What of the future role and structure of the various Council formations? How should the coherence of European foreign policy be enhanced? How is synergy between the High Representative and the competent Commissioner to be reinforced? Should the external representation of the Union in international fora be extended further?

Towards a Constitution for European citizens

The European Union currently has four Treaties. The objectives, powers and policy instruments of the Union are currently spread across those Treaties. If we are to have greater transparency, simplification is essential.

Four sets of questions arise in this connection. The first concerns simplifying the existing Treaties without changing their content. Should the distinction between the Union and the Communities be reviewed? What of the division into three pillars?

Questions then arise as to the possible reorganisation of the Treaties. Should a distinction be made between a basic treaty and the other treaty provisions? Should this distinction involve separating the texts? Could this lead to a distinction between the amendment and ratification procedures for the basic treaty and for the other treaty provisions?

Thought would also have to be given to whether the Charter of Fundamental Rights should be included in the basic treaty and to whether the European Community should accede to the European Convention on Human Rights.

The question ultimately arises as to whether this simplification and reorganisation might not lead in the long run to the adoption of a constitutional text in the Union. What might the basic features of such a constitution be? The values which the Union cherishes, the fundamental rights and obligations of its citizens, the relationship between Member States in the Union?

III. CONVENING OF A CONVENTION ON THE FUTURE OF EUROPE

In order to pave the way for the next Intergovernmental Conference as broadly and openly as possible, the European Council has decided to convene a Convention composed of the main parties involved in the debate on the future of the Union. In the light of the foregoing, it will be the task of that Convention to consider the key issues arising for the Union's future development and try to identify the various possible responses.

The European Council has appointed Mr V. Giscard d'Estaing as Chairman of the Convention and Mr G. Amato and Mr J.L. Dehaene as Vice-Chairmen.

Composition

In addition to its Chairman and Vice-Chairmen, the Convention will be composed of 15 representatives of the Heads of State or Government of the Member States (one from each Member State), 30 members of national parliaments (two from each Member State), 16 members of the European Parliament and two Commission representatives. The accession candidate countries will be fully involved in the Convention's proceedings. They will be represented in the same way as the current Member States (one government representative and two national parliament members) and will be able to take part in the proceedings without, however, being able to prevent any consensus which may emerge among the Member States.

The members of the Convention may only be replaced by alternate members if they are not present. The alternate members will be designated in the same way as full members.

The Praesidium of the Convention will be composed of the Convention Chairman and Vice-Chairmen and nine members drawn from the Convention (the representatives of all the governments holding the Council Presidency during the Convention, two national parliament representatives, two European Parliament

representatives and two Commission representatives).

Three representatives of the Economic and Social Committee with three representatives of the European social partners; from the Committee of the Regions: six representatives (to be appointed by the Committee of the Regions from the regions, cities and regions with legislative powers), and the European Ombudsman will be invited to attend as observers. The Presidents of the Court of Justice and of the Court of Auditors may be invited by the Praesidium to address the Convention.

Length of proceedings

The Convention will hold its inaugural meeting on 1 March 2002, when it will appoint its Praesidium and adopt its rules of procedure. Proceedings will be completed after a year, that is to say in time for the Chairman of the Convention to present its outcome to the European Council.

Working methods

The Chairman will pave the way for the opening of the Convention's proceedings by drawing conclusions from the public debate. The Praesidium will serve to lend impetus and will provide the Convention with an initial working basis.

The Praesidium may consult Commission officials and experts of its choice on any technical aspect which it sees fit to look into. It may set up ad hoc working parties.

The Council will be kept informed of the progress of the Convention's proceedings. The Convention Chairman will give an oral progress report at each European Council meeting, thus enabling Heads of State or Government to give their views at the same time.

The Convention will meet in Brussels. The Convention's discussions and all official documents will be in the public domain. The Convention will work in the Union's eleven working languages.

Final document

The Convention will consider the various issues. It will draw up a final document which may comprise either different options, indicating the degree of support which they received, or recommendations if consensus is achieved.

Together with the outcome of national debates on the future of the Union, the final document will provide a starting point for discussions in the Intergovernmental Conference, which will take the ultimate decisions.

Forum

In order for the debate to be broadly based and involve all citizens, a Forum will be opened for organisations representing civil society (the social partners, the business world, non-governmental organisations, academia, etc.). It will take the form of a structured network of organisations receiving regular information on the Convention's proceedings. Their contributions will serve as input into the debate. Such organisations may be heard or consulted on specific topics in accordance with arrangements to be established by the Praesidium.

Secretariat

The Praesidium will be assisted by a Convention Secretariat, to be provided by the General Secretariat of the Council, which may incorporate Commission and European Parliament experts.

Date: 15/12/2001

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTERS

2000

November 1999

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
17.01.2000

ETSI WG ERM-RP 02 meeting

Budapest 10-14 January 2000

1. Introduction

The European Commission has appointed ETSI (the European Telecommunications Standards Institute) to prepare harmonized standards for the Telecommunications Conformity Assessment and Market Surveillance Committee (TCAM), a body created by the R&TTE Directive, Article 13.

The ETSI specialized working group ERM RP02 was meeting in Budapest last week. Amateur Radio equipment was on the agenda.

Ha-Jo Brandt (DJ1ZB), DARC representative to ETSI, was this same week in an ITU meeting in Bangalore (India). Therefore, DARC asked the EUROCOM Chairman to participate to the ETSI meeting in Budapest to monitor the work on the new Amateur Radio Equipment Harmonized Standard.

2. Participants

The meeting was chaired by the RP 02 Chairman, **Georges de Brito** (FranceTelecom). The other participants were:

Bronner	Alfred	AEG Mobile Communication	Germany
Mennie	Jason	Radio Communication Agency	UK
Sharpe	Mike	ETSI Secretary	France
Lundbech	Sven	Tele Danmark	Denmark
Mège	Philippe	Matra Nortel Communications	France
Meronen	Juhani	Telecom Administration	Finland
Bertels	Gaston	DARC/IARU	Belgium
Kovács	Csaba	Hungarian Radio Association	Hungary
Csikász	István	Communication Authority	Hungary
Papp	Gábor	Communication Authority	Hungary
Bálint	Irén	Communication Authority	Hungary
Torma	Zsolt	Communication Authority	Hungary

Only a few of the participants were in the meeting from the beginning to the end.

I was happy to meet Sven Lundbech, OZ7S, technical editor of OZ, the EDR magazine and member of the board of EDR.

3. Agenda

The main topics on the agenda were :

- TR 100 028 Measuring uncertainties including uncertainties for radiating measurements

- DIIS protocol (New Multimode Digital Interchange System)
- ETS 300 113 (speech equipment with an antenna connector) to be converted into a candidate HS (Harmonized Standard)
- ETS 300 390 (data equipment with an integral antenna) to be converted into a candidate HS (Harmonized Standard)
- ETS 300 135 (CB equipment with angle modulation) to be converted into a candidate HS (Harmonized Standard)
- ETS 300 433 (CB equipment with amplitude modulation) to be converted into a candidate HS (Harmonized Standard)
- EWP RP 02-48 (**Amateur Radio equipment**).Generation of a candidate Harmonized Standard.

Moreover reports were presented on the progress of work in other ETSI working groups. Among these, three papers on **Power Line Telecommunications** (PLT) are especially important:

- Report of the meeting of CEPT/ERC Spectrum Engineering in Mainz, December 6-7, 1999
- Powerline Data ex CEPT FM Report
- Use of Frequency Spectrum below 30 MHz (ERO)

These papers will be presented to the Working Group FM (Frequency Management) of the European Radiocommunications Committee (ERC) which will meet in Napels, 17-21 January, 2000.

I insisted on the danger of PLT for HF users such as the military, HF broadcasters and the amateur radio service. The protection of the spectrum users is addressed in the papers under review. The CEPT FM Report concludes that "*there should be a unified European and possibly worldwide solution for PLT applications".*

4. Proceedings

- **TR 100 028 - Measurement uncertainties**

  Chairman de Brito stressed the importance of the work to be done on this document, especially with a view upon the R&TTE directive. The liability of the manufacturers could be addressed in court for the lack of precision of their measurements, stumbling block of the "declaration of conformity".

  The very dense document, stuffed with maths (calculus), is not "user friendly": the participants confessed that they never gave it a look...

  Chairman de Brito asked for suggestions on how to make it more attractive. I suggested to insert overview tables where the user could pinpoint the topic of interest to him for a particular problem. This idea was accepted and I was asked to develop a table for the chapter under review: <u>Annex D - Theoretical support for the evaluation of measurement uncertainties, including mathematical tools and properties of distributions.</u>

  The table I developed was used for the further work which went on every day in the morning. Although it is a mere compilation and a presentation of the existing and of the newly developed formulae, it seemed to be usefull and will probably be inserted in the final version of the document.

- **Amateur Radio equipment**
  For the development of an Harmonized Standard for Amateur Radio equipment Pete Hizzey (ICOM) had been appointed to present a draft. Pete (G6YLO, F1VBW), could not participate to this meeting since he was to be on two other ETSI meetings this same week.

  Article 3 of the R&TTE directive states:

  3.1 The following essential requirements are applicable to all apparatus:

(a) the protection of the health and the safety of the user and any other person, including the objectives contained in Directive 73/23/EEC (Low Voltage Directive), but with no voltage limit applying;

(b) the protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC.

3.2 In addition, radioequipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.

...

In accordance with the EMC Directive 89/336/EEC, ETSI had already developed an EMC standard for commercially available amateur radio equipment ETS 300 684, which was adopted as an harmonized standard in 1998. This standard covers as well EMC as antenna and enclosure conducted and radiated signals.

ETSI created a special task group TG6 to develop guidelines for the production of candidate Harmonized Standards (see EUROCOM WG Report of 5 February 1999). This ETSI guide EG 201 399 is now in use.

Moreover, ETSI Technical Committee Electromagnetic Compatibility and Radio Spectrum Matters (ERM) is producing a candidate Harmonized Standard EN 301 489 comprising 22 parts, each covering the specific EMC conditions for different kinds of equipment (R&TTE Art. 3.1b). Part 15 covers commercial amateur radio equipment and has the same content as ETS 300 684 which will become obsolete.

But ETS 300 684 has more in it than purely EMC parameters. Other parameters are related to spectrum matters for which R&TTE Art. 3.2 has to be complied with.

The difficulty is that the ETSI guide EG 201 399 for developing harmonized R&TTE standards is written for all "normal" types of radio that operate in fixed channel systems where the next channels must be protected. But amateur licencing is by allocated frequency bands, and it are users and services outside the allocated bands that must be protected. Therefore, EG 201 399 cannot apply for amateur radio.

Pete Hizzey had submitted a paper to the WG ERM RP02 suggesting *"that it could be considered that the essential requirements of R&TTE Art. 3.2 can be taken as being fully addressed by the existing antenna port / enclosure port tests contained in the EMC/functional standard ETS 300 684, that have been removed from the relevant EN 301 489 Part 15 EMC product standard".*

When I was asked to introduce this paper I first of all insisted on the real purpose and on the scope of the amateur radio service and submitted the complete table of allocated frequencies. I also showed the status of the service (exclusive, primary, secundary) and explained how the voluntary IARU bandplanning operates. Consequently, I was asked to draft a harmonized standard.

Sven, OZ7S offered his help and we spent the evening drafting a project. Sven contacted Pete, G6YLO by e-mail and the next day Pete forwarded the draft of the harmonized standard he was working upon.

On the last day of the meeting I presented Pete's project as draft EN 300 AMA, centered on:

- unwanted emissions, conducted: antenna port limits
- unwanted emissions, radiated: enclosure port limits
- conducted RF immunity.

After some debate, the project was accepted unanimously as far as the content is concerned. The summary record of the meeting states that *"the document has to be reorganized in the light of other RP02 documents, <u>keeping the same values</u>"*.

The redrafted document will probably be adopted as a candidate harmonized standard at the next ERM meeting in February.

5. Conclusion

An important step has been made in the generation of an harmonized standard for commercially available amateur radio equipment.

As far as EMC and spectrum are concerned, the essential requirements for this type of equipment will be satisfied by complying with two different Harmonized Standards:

- EN 301 489-15 covering EMC requirements under Art. 3.1b of the R&TTE Directive
- EN 300 AMA covering spectrum requirements under Art. 3.2 of the R&TTE Directive, where "AMA" will be replaced by an appropriate number to be given by ETSI / ERM.

Together, these two documents have the same content as the now existing standard ETS 300 684.

The requirements of Art. 3.1a of the R&TTE Directive are applicable to all telecommunications terminal equipment, not only to radio equipment.

The requirements of Art. 3.3 of the R&TTE Directive are not aplicable to amateur radio equipment.

73.

G.Bertels, ON4WF
EUROCOM Chairman

PS : IARU Liaison László Berzsenyi, HA5EA, who is Director of the Communications secretariat of the Hungarian Ministry of Transport, Communication and Water Management, paid a private visit at lunchtime on Friday. His presence favoured the position of the amateur radio service.

Conclusions	**1°). There should be a unified European and possibly worldwide solution for PLT applications.** **2°). It is not yet clear by which mechanism this unified solution should be implemented at the European level and several options are possible :** **- ERC Decision ;** **- harmonised standard under the EMC Directive ;** **- other…** **3°). Based on the information available (use of the HF band, see Section 5), the group expressed a preference for the setting of a general limit (flat or slowly varying) across the band rather than limits based on the so-called "chimney" concept.**
Conclusions	**1°). The use of the HF band is presently heavy and is likely to increase in the coming years as new applications are foreseen (e.g. digital broadcasting).** **2°). At present, the use of the HF radio spectrum is not fully harmonised in Europe.** **3°). ERC is the relevant body to inform the standardisation committees about the protection needs (field to protect, protection ratio…) of the HF radio services in order that appropriate PLT and similar cable transmission systems emission limits are derived based on these protection needs.** **4°). In order to facilitate this information gathering, it was felt useful if WG FM could produce a report on the use of the HF band (below 29.7 MHz) throughout CEPT that could eventually be incorporated later in ERC Report 25 (ECA = European Common Allocations).** **5°). The BBC study (document CEPT/ERC/SE(99)PLT15) should be input at a later stage to the relevant EMC standardisation groups as an example of technical documentation under consideration by CEPT/ERC on the protection needs of radio services.**
Conclusion	**A measurement standard should be prepared based on the German and UK drafts and any other available relevant document (e.g. EN 50083-8…)**
Conclusion	**A measurement standard should be prepared based on the German and UK drafts and any other available relevant document (e.g. EN 50083-8…)**
Conclusion	**It is useful to gather information on National regulations on cable TV systems in the various CEPT countries. Administrations and ECCA are invited to contribute to this exercise, and the assistance of ERO will be sought.**
Conclusions	**1°). It is proposed to send the report of this meeting, not only to our parent Committee, WG SE, but also to WG FM and to WG RR as both WGs have expressed interest in PLT.** **2°). The attached proposed liaison statement to CENELEC… will be sent to the ERC Chairman.** **3°). The group recommends to WG SE to create a Project Team on Power Line Telecommunications (PLT) and cable transmissions in general.**

Annex D: Draft liaison statement from ERC to CENELEC

Mr Jean-Yves Boivin
Chairman CLC/SC205A
Electricité de France
Dir. du Développement
3, Rue de Messine
F-75384 Paris Cedex 08

, December 1999

Dear Mr Boivin

At its recent meeting, the European Radiocommunications Committee[1] (ERC) received reports about the work in progress in CENELEC SC 205A and ETSI EP PLT to develop new standards for Power Line Communication/Telecommunication (PLC/PLT) systems. The ERC noted that new PLC/PLT systems are intended to use frequencies below 30 MHz and that the standards under development will include limits for the radiation from the (electricity) distribution cables, with the intention to avoid interference to radiocommunications systems operating in this part of the spectrum.

One of the ERC's main responsibilities is to forward plan and harmonise the efficient use of the radio spectrum in Europe so as to satisfy future spectrum requirements of the European users and industry. There is extensive existing use of the spectrum below 30 MHz because of the unique propagation conditions of radio waves in this frequency range, examples include safety-of-life services, especially those used for aeronautical and maritime operations, national defence systems and broadcasting. In addition, new technology, for example digital radio broadcasting, is expected to lead to growth in the use of this spectrum. The ERC is concerned to ensure existing systems are protected from interference, also to ensure future demands for spectrum can be met. Administrations also have treaty obligations, through the ITU Radio Regulations (RR), to protect radiocommunications. RR S15.12, in particular, requires Administrations to ensure that power and telecommunication distribution networks do not cause harmful interference. The ERC therefore has a major interest in the limits to be included in any standard and is undertaking technical studies to determine what values might be necessary to protect radiocommunications, with the objective to harmonise the national regulations already under development in a number of countries.

The ERC welcomes the proposal from ETSI to hold on January 19, 2000 a meeting between CENELEC, ETSI and the ERC with a view to co-ordinating work programmes and to clarify the responsibilities. A Memorandum of Understanding between ERC and ETSI has been in operation successfully for some time. I understand that there is a co-operation agreement between CENELEC and ETSI as well. So, with these as foundations, this meeting offers an excellent opportunity to initiate efficient co-operation and co-ordination of activities between all the European bodies involved to find a satisfactory solution for a regulatory framework for new PLC/PLT applications.
Finally, as background information, I attach some explanatory notes about the ERC, its mission and structure.

Yours sincerely,

ERC Chairman

Copies : European Commission, ETSI ERM, ETSI EP PLT, CENELEC SC 210A,
CENELEC SC205A WG10

CC: European Commission
Enterprise DG/I
Mr Nicholas Argyris
Wetstraat 200 Rue de la Loi
B-1049 Brussels, Belgium

M. Olly Wheaton
ETSI ERM Chairman
Radiocommunications Agency UK
WHEATONO@ra.gtnet.gov.uk

M. Ronnie Storrs
ETSI ERM/EMC Chairman
Telia

[1] European Radiocommunications Committee of the "Conférence Européenne des Postes et Télécommunications"

123 86 FARSTA
SWEDEN
ronald.l.storrs@telia.se

M. Georges De Brito
ETSI ERM/RM Chairman
France Telecom
CNET DMR/URF
38-40 rue du Général Leclerc
92 794 Issy Moulineaux Cedex 9
FRANCE
Georges.debrito@cnet.francetelecom.fr

M. August Blunschi
Chairman ETSI EP PLT
Ascom, Belpstrasse 37, CH-3000 Bern 14, Switzerland
August.Blunschi@ASCOM.CH

M. Maarten Vrolijk
Chairman CENELEC SC210A
Philips Corporate Standardization Dept.
Building SAN-5
Kastanjelaan 1
PO Box 218
NL-5600 MD EINDHOVEN
The Netherlands
w.zuidinga@emcinfo.demon.nl

M. Pietro Mirandola
Chairman SC205A WG10
ENEL

Working Group FM
of the European
Radiocommunications
Committee

Doc. FM(2000)034
20.12.99

Naples, 17 - 21 January 2000

Subject: Approved report of the ERC WG SE special meeting on PLT

Origin: B. Després

CEPT/ERC
Working Group Spectrum Engineering
Special Meeting on Power Line Telecommunication (PLT)

CEPT/ERC/SE(99)PLT21rev1

Mainz, December 6-7, 1999

1 Opening of the meeting

B. Després opened the meeting by welcoming the participants to this first special meeting on PLT and thanked RegTP for hosting the meeting. C. Wöste from RegTP welcomed the delegates to Mainz and explained the practical arrangements for the meeting.

T. Jeacock, the WG SE Chairman, informed the participants of the discussions on PLT at the ERC meeting the week before where contributions from Finland and Denmark had been discussed. The ERC has agreed that a co-ordinated approach between administrations should be developed to protect radiocommunication services from potential interference caused by radiation from wire telecommunication networks - especially those using electricity, telephone or cable TV distribution networks. The special WGSE PLT meeting 6-7 December was requested to develop an action plan and a strategy for co-ordinating work with ETSI and CENELEC, taking into account the existing Co-operation agreement between ETSI and CENELEC and the MoU between ETSI and ERC. It should also consider whether a project team should be established.

2 Approval of the agenda

The draft agenda (document 1) was slightly modified. The adopted agenda is attached as annex A.

3 Introduction to the EMC and spectrum issues

As a general introduction to the subject, K. Yard presented the slides contained in document CEPT/ERC/SE(99)PLT 18 that were already presented at the CEPT ERC Civil Military meeting on November 8-10 in Mainz. He described the experiments conducted in the UK on the Nor.Web system in the Manchester area and the limits of the draft standard MPT 1570 that are proposed to be implemented in the UK to control, in case of investigations following a complaint for interference, the radiated emissions produced by PLT and cable transmission systems in general.

M. Gawron then presented the slides contained in document CEPT/ERC/SE(99)PLT 19 that were already presented at a CENELEC SC 205A WG10 meeting. He gave information on the conducted measurements below 30 MHz defined by CISPR/G and CENELEC SC 210A in CISPR 22 and EN 55022 in the case of transmissions over the telecommunication line (Impedance Stabilisation Networks (ISN), measuring method…). He also explained the draft ISN developed to measure PLT conducted emissions and the theoretical and practical studies performed in RegTP on EMC of cable transmission systems.

Finally, B. Després presented the slides contained in document CEPT/ERC/SE(99)PLT 14 that describe the different questions to be solved to establish a regulatory framework for PLT : should PLT systems be regulated under the EMC Directive or not ? Should we do conducted or radiated measurements to control PLT emissions ? He then made an overview of the different regulatory and

standardisation committees at International and European level currently working on PLT and stressed the lack of coordination and possible overlap of activities and gave the information that a coordination meeting between CENELEC, ETSI and ERC tentatively scheduled for January 2000 should hopefully clarify the different responsibilities and repartition of activities. He also mentioned that a summary of the different standardisation activities could be found in document CEPT/ERC/SE(99)PLT 2 prepared by WG SE.

4 How to regulate PLT systems

As an introduction to this section, B. Després presented the answers provided by 10 CEPT administrations in document CEPT/ERC/SE(99)PLT 2 on the appropriate regulatory framework for PLT applications. He explained that opinions are balanced and/or not yet determined among the 10 responding countries on the way to regulate such systems : there is no clear majority either for standards enforced under the normal EMC regulations, or for specific limits defined on a national or CEPT basis.

J. Kragh presented document CEPT/ERC/SE(99)PLT 3 which contains as an annex a reply from the European Commission following a request from the Danish National Telecom Agency (NTA), expressing the view that telecommunication networks (including transmissions over the mains networks) are subject to the provisions of the EMC Directive and should be considered as “fixed installations” in the sense of the EMC Directive. Based on this answer, NTA proposes that PLT should be regulated under the EMC Directive and that WG SE should create a Project Team on PLT that will be tasked to input the relevant technical information to the relevant standardisation committees.

K. Yard presented document CEPT/ERC/SE(99)PLT 11rev1 that is the proposed UK standard MPT 1570 on radiation limits for telecommunication systems (including PLT) operating above material substances in the frequency range 9 kHz to 300 MHz. He explained that the standard is intended to be referenced in a Section 10 Regulation under the Wireless Telegraphy Act and that this proposal will enter a review process soon (Public Comments phase finished, Regulatory Impact Assessment to follow). He gave the precision that this standard is not proposed for systematic measurements on all telecommunication networks but on investigations in case of interference complaints. He also explained that RA had received legal advice that telecommunications networks such as PLT did not fall within the scope of the EMC Directive because the Directive was not retrospective, whereas the cables had been installed prior to the Directive coming into force. Also, the system could be claimed to be an “excluded installation” because the modems and cable are not designed as a single functional unit.

Y. Hämäläinen presented document CEPT/ERC/SE(99)PLT 15 which generally supports the work undertaken in the UK and Germany to define appropriate limits for PLT and cable transmissions systems and that all efforts should be made to try to define a harmonised single limit acceptable to all ERC administrations. He further indicated that the “chimney” approach, that is giving permission for PLT to have, in some frequency ranges, higher radiation levels than conventional wired telecommunications networks, is not felt an acceptable solution. Finally, he said that the idea of geographical exclusion zones around the location of sensitive services is nearly impossible to implement in practise for systems like PLT that are not subject to a licence. “Sensitive” services were defined as those requiring protection from interference so that they could receive low field strength signals. Such sites were often but not always associated with safety-of-life or national defence operations.

C. Wöste informed the meeting about the draft regulation currently proposed in Germany to establish mandatory radiated measurements to be performed on all PLT and cable transmission systems.

B. Després gave the information that the French administration (ANFR) had a similar view as Denmark on the regulatory framework for PLT, i.e. that an appropriate EMC harmonised standard should be developed to cover PLT emissions and that no other regulatory mechanism should be needed additionally.

In the general discussion that followed, it appeared that opinions were balanced and that there were uncertainties among the participants whether PLT and similar cable transmission systems could be regulated solely under the EMC Directive or if additional provisions would be necessary.

However, whatever the answer to this first question, it was the general opinion that a global solution should be sought at the European and possibly International level, and that every effort should be made not to come with different National solutions. To this respect, it was commented that the present

draft UK and German limits are not too far away from one another and that it should be possible to arrive to a unified limit.

Conclusions	**1°). There should be a unified European and possibly worldwide solution for PLT applications.** **2°). It is not yet clear by which mechanism this unified solution should be implemented at the European level and several options are possible :** **- ERC Decision ;** **- harmonised standard under the EMC Directive ;** **- other…** **3°). Based on the information available (use of the HF band, see Section 5), the group expressed a preference for the setting of a general limit (flat or slowly varying) across the band rather than limits based on the so-called "chimney" concept.**

5 Use of the radio spectrum from 150 kHz to 30 MHz and protection needs

J. Stott presented document CEPT/ERC/SE(99)PLT 15 that has been prepared as an input to the RA working group on HF mains signalling. The paper presents the results of a technical study that has been performed to assess the size of the necessary exclusion zone around sensitive radio receiving sites, using the propagation model defined in ITU-R Rec. 368 for ground wave propagation. It concludes that the necessary exclusion zone would be in the order of 50 to 100 km and that, in the case of UK were approximately 60 sensitive sites have been identified, the superposition of all these zones nearly cover the whole country. Calculations were also performed in the case of sky-wave propagation (using a simplified model) and in the case of interference to aircraft, showing that the interference distance can even reach several thousand kilometres, therefore advocating for a pan-European rather than a National solution for PLT systems in one country may affect radio services in neighbouring countries.

A discussion followed on the values for the various parameters in which it was mentioned that a similar calculation performed by Ascom (Switzerland) based on different hypotheses led to different conclusions. However, if similar parameters for the PLT systems are applied in both studies, they would have led to broadly similar results. The Ascom paper was distributed under reference CEPT/ERC/SE(99)PLT 20.

A more general discussion followed on the present and future use of the HF band by radio services and on the expertise ERC should input to the relevant standardisation bodies with regard to protection needs of radio services.

Conclusions	**1°). The use of the HF band is presently heavy and is likely to increase in the coming years as new applications are foreseen (e.g. digital broadcasting).** **2°). At present, the use of the HF radio spectrum is not fully harmonised in Europe.** **3°). ERC is the relevant body to inform the standardisation committees about the protection needs (field to protect, protection ratio…) of the HF radio services in order that appropriate PLT and similar cable transmission systems emission limits are derived based on these protection needs.** **4°). In order to facilitate this information gathering, it was felt useful if WG FM could produce a report on the use of the HF band (below 29.7 MHz) throughout CEPT that could eventually be incorporated later in ERC Report 25 (ECA = European Common Allocations).** **5°). The BBC study (document CEPT/ERC/SE(99)PLT15) should be input at a later stage to the relevant EMC standardisation groups as an example of technical documentation under consideration by CEPT/ERC on the protection needs of radio services.**

6 Measurements of emission from PLT

B. Després briefly introduced CEPT/ERC/SE(99)PLT 2 where in the answers to questions 1 and 2 (PLT trials or commercial PLT service in your country ?) can be found useful information on measurements performed in the UK, Germany, Sweden… where field trials have taken place.

L. Dunker presented a few slides on the results of recent field experiments conducted by RegTP. The magnetic field radiated by an outdoor cable was measured at different distances and locations from the cable. Results showed that the field does not decrease following a 1/d rule as it does in the far field zone and that, due to the noise level for the field test, L. Dunker suggested that conducted measurements should also be studied. He then presented document CEPT/ERC/SE(99)PLT 10, the draft German standard proposing a measurement method to perform the tests corresponding to a new proposed regulation on emission from cable systems.

C. Wooff presented document CEPT/ERC/SE(99)PLT 11rev1, the latest version of the draft UK standard MPT 1570 that is intended to define the measurement method and limits to be used for investigations following a complaint for interference from a cable transmission system, under a proposed new UK regulation. He explained that the limits are based on the average noise floor in the HF band and are intended to protect the radio services at 1 meter, and that specific more sensitive loop antennas were developed in the UK to perform these measurements and have been proposed to be standardised by CISPR.

In answer to questions on the comparison between the draft UK and German limits and the limits of existing EMC standards (EN 55022 Class B radiated limit above 30 MHz), K. Yard explained that the limits are still under discussion and that a review process should take place soon in the UK.

B. Després asked the previous speakers whether they consider it more appropriate, in the near field zone around the cables, to measure the electric or the magnetic component of the electromagnetic field. After discussion, it was clarified that although a single cable constitutes a dominant electric field source, actual cable installations are more difficult to predict. L. Dunker explained that a University in Germany has performed comparative measurements showing that the ratio between both components were in some instances close to the free space impedance and in some other instances, one component was dominant, so that, in essence, both components should be measured. C. Wooff explained that results of studies performed in the UK concluded that a balanced cable (e.g. telephone subscriber cable) produces a field with plane wave characteristics even in the near field zone, whereas for electric cables, the predominance of “loops” (for example between the forward and the return cable) led to the conclusion that the magnetic component should be measured, as indicated in MPT 1570.

Conclusion	**A measurement standard should be prepared based on the German and UK drafts and any other available relevant document (e.g. EN 50083-8…)**

7 Review of the standardisation activities on PLT outside CEPT

7.1 CISPR

B. Després presented document CEPT/ERC/SE(99)PLT 5 that is a draft amendment to CISPR 22 and EN 55022 prepared by CISPR/G and CENELEC SC 210A to include equipment used for data transmission and telecommunication services across a power supply network within the scope of these standards and to define an ISN (Impedance Stabilisation Network) to perform conducted measurements on the mains port.

7.2 ITU-R

T. Jeacock, as Chairman of ITU-R WP 1A, introduced documents CEPT/ERC/SE(99)PLT 16 & 17 that contains two draft Questions and a draft Resolution adopted by Study Group 1 at its August meeting as a result of a proposal input by CEPT countries presenting the ERC/SE activities on PLT. He urged CEPT administrations to support these questions when the ITU circulated them for approval by correspondence and especially the Resolution when it is presented for approval at the Radio Assembly next year. He expected the main contributions to the ITU studies would be the result of the work developed in the WGSE PLT group.

7.3 CENELEC

B. Després briefly introduced document CEPT/ERC/SE(99)PLT 5 that contains the terms of reference of the newly created WG10 of CENELEC SC 205A that deals with HF signalling and drew attention to the frequency management aspects that are mentioned to be covered by this Committee.

M. Gawron presented documents CEPT/ERC/SE(99)PLT 6, 7 and 13 that are the minutes of the three last WG10 meetings (monthly held) and gave a summary and the status of the work in this group. He explained that WG10 would like to proceed as quickly as possible with some draft emission limits for PLT applications but that for the moment only limited results were obtained because of diverging views and of a lack of knowledge of the appropriate mechanism to liaise with other relevant bodies on the subject and especially with ERC.

7.4 ETSI

B. Després presented document CEPT/ERC/SE(99)PLT8 that is the approved report of the first meeting of the newly created ETSI Project on Power Line Telecommunication (EP PLT). He quoted the conclusion reached there that "EP PLT will deal with network and protocol issues. Matters related to EMC and frequency allocation will be left to ETSI TC ERM and CENELEC as appropriate."

A general discussion then took place on all these standardisation activities where it was decided that a liaison statement to CENELEC SC 205A, with copies to the European Commission and to the other relevant CENELEC and ETSI groups dealing with PLT should be prepared.

Conclusion	**1°). A liaison statement to be sent by the ERC Chairman to the Chairman of SC205A, with copies to the European Commission and the Chairmen of ETSI ERM, ETSI EP PLT and CENELEC SC 210A and SC205A WG10 has been prepared and is attached as Annex D to this report**

8 EMC of other cable transmission systems (telecommunication, cable TV…)

D. Court introduced, on behalf of ECCA, the European Cable Communications Association the European trade association for Cable Operators and their national associations, document CEPT/ERC/SE(99)PLT 12 on the compatibility between coaxial networks and radiocommunication services. The paper stressed that ECCA members were not seeking protection; they also wished to avoid causing harmful interference to radiocommunication services. The document also described various regulatory, operational and legal measures, which might be employed to provide confidence to the radiocommunication community and maximise the use of frequencies on cable networks. Some calculations were also included that addressed compatibility in the 108-146 MHz radionavigation band (that cannot be used by cable TV networks in some countries) and presents for information the way FCC regulates such systems in the USA. D. Court explained that contacts have been taken with ICAO, NATO and Eurocontrol with a meeting scheduled soon with ICAO FMG and in general advocated that cable TV networks should preferably be solely regulated by the EMC Directive or if that were not to be practicable, by another European regulatory mechanism such as CEPT ERC Decisions, to avoid having diverging national regulations. Once a common solution had been defined, ECCA could issue a Code Of Practise (COP) for its members, which might include operational procedures (for cable operators) and contractual requirements (for cable customers) to supplement any European regulatory solution.

A discussion followed on the requirements applicable for cable TV in the various CEPT countries. It was mentioned that there appeared to be many synergies with the PLT situation and that a pan European approach might be the preferred solution. Although the SE Chairman indicated that PLT should have priority in the work programme, ECCA felt that too much delay would not be appropriate since fundamental changes were taking place in the cable industry, which provided a window of opportunity for rationalisation. These included the emergence of several large players in the industry, the digitisation of networks and the upgrading of networks to provide inter-active broadband services. It was concluded that, at a first step, it would be useful to collect information on the different regulations applicable at present in Europe, in order to examine if, at a later stage, harmonisation would be possible.

Conclusion	**It is useful to gather information on National regulations on cable TV systems in the various CEPT countries. Administrations and ECCA are invited to contribute to this exercise, and the assistance of ERO will be sought.**

9 Future WG SE activities on PLT and cable transmissions in general

A discussion took place on the distribution of our report, on the proposed liaison statement and on the creation of a Project Team to cover PLT and cable transmissions in general.

Conclusions	**1°). It is proposed to send the report of this meeting, not only to our parent Committee, WG SE, but also to WG FM and to WG RR as both WGs have expressed interest in PLT.** **2°). The attached proposed liaison statement to CENELEC… will be sent to the ERC Chairman.** **3°). The group recommends to WG SE to create a Project Team on Power Line Telecommunications (PLT) and cable transmissions in general.**

10 Any other business

There was none.

11 Close of the meeting

B. Després thanked the participants for the fruitful discussions, expressed his gratitude to RegTP for hosting the meeting. The Chairman was thanked for his efficient handling of the meeting and the meeting was closed.

Annex A: Adopted agenda

CEPT/ERC
Working Group Spectrum Engineering
Special Meeting on Power Line Telecommunication (PLT)

CEPT/ERC/SE(99)PLT1rev3

Mainz, December 6-7, 1999

Date: November 30, 1999

Subject: Agenda of the special meeting on PLT

Source: B. Després (PLT coordinator)

1. Opening of the meeting

Results of the ERC meeting

2. Approval of the agenda

CEPT/ERC/SE(99)PLT1rev3

3. Introduction to the EMC and spectrum issues

CEPT/ERC/SE(99)PLT18
CEPT/ERC/SE(99)PLT19
CEPT/ERC/SE(99)PLT14
CEPT/ERC/SE(99)PLT2

4. How to regulate PLT systems

CEPT/ERC/SE(99)PLT2
CEPT/ERC/SE(99)PLT3
CEPT/ERC/SE(99)PLT11
CEPT/ERC/SE(99)PLT15

5. Use of the radio spectrum from 150 kHz to 30 MHz and protection needs

CEPT/ERC/SE(99)PLT4
CEPT/ERC/SE(99)PLT20

6. Measurements of emission from PLT

CEPT/ERC/SE(99)PLT2
CEPT/ERC/SE(99)PLT10
CEPT/ERC/SE(99)PLT11rev1

7. Review of the standardisation activities on PLT outside CEPT

7.1 CISPR	CEPT/ERC/SE(99)PLT9
7.2 ITU-R	CEPT/ERC/SE(99)PLT16 & PLT17
7.3 CENELEC	CEPT/ERC/SE(99)PLT5, PLT6, PLT7 & PLT13
7.4 ETSI	CEPT/ERC/SE(99)PLT8

8. EMC of other cable transmission systems (telecommunication, cable TV...)

CEPT/ERC/SE(99)PLT12

9. Future WG SE activities on PLT and cable transmissions in general

10. Any other business

11. Close of the meeting

Annex B: Meeting documents list

DOCUMENT	SOURCE	DOCUMENT TITLE	AGENDA
PLT 1rev3	B. Després	Agenda for meeting 1	2
PLT 2	B. Després	WG SE activities on PLT	3, 4, 6
PLT 3	National Telecom Agency, Denmark	Regulation of power line telecommunication	4
PLT 4	BBC R&D	Protection of “sensitive” receiving site	5
PLT 5	CENELEC SC 205 A	Terms of reference of CENELEC SC205A WG10	7.3
PLT 6	CENELEC SC 205 A	Minutes of the second meeting of CENELEC SC 205A/WG10	7.3
PLT 7	CENELEC SC 205 A	Minutes of the third meeting of CENELEC SC 205A/WG10	7.3
PLT 8	ETSI EP PLT	Report of PLT meeting 1	7.4
PLT 9	CISPR/G	CISPR/G and CENELEC SC 210A	7.1
PLT 10	Reg TP	Draft Reg TP 322 MV 05 : measurement specification for disturbance field measurements on telecommunication equipment and lines in the frequency range from 9 kHz to 3 GHz	6
PLT 11rev1	Radiocommunications Agency	Draft MPT 1570 : Electromagnetic radiation from telecommunications systems operating over material substances in the frequency range 9 kHz to 300 MHz	4, 6
PLT 12	ECCA	Compatibility between the use of frequencies on coaxial cable networks and radiocommunication services	8
PLT 13	CENELEC SC 205 A	Minutes of the third meeting of CENELEC SC 205A/WG10	7.3
PLT 14	B. Després	Introduction to the regulatory framework and the standardisation activities on PLT in Europe (slides)	3
PLT 15	Finland	Harmonised regulation for PLT systems	4
PLT 16	ITU-R WP1A & WP1C	Draft New Questions : measurement method and compatibility studies between radiocommunication systems and high data rate telecommunication systems using electricity power distribution or telephone distribution wiring	7.2
PLT 17	ITU-R WP1A	Draft New Resolution : compatibility between radiocommunication systems and high data rate telecommunication systems using electricity power distribution or telephone distribution wiring	7.2
PLT 18	Radiocommunications Agency	Power Line Technology (PLT) in the United Kingdom (slides)	3
PLT 19	RegTP	Presentation of the studies on conducted measurements in CISPR/G, CENELEC SC210A and RegTP (slides)	3
PLT 20	Ascom	On the global EMC aspect of broadband power line communications using the HF frequency band	5
PLT 21	B. Després	Report of the meeting	

Annex C: List of Participants

Name	Organisation	Tel. / Fax	E-Mail
Bernard DESPRES	France Telecom FRANCE	Tel.: +33 1 45 29 6788 Fax: +33 1 45 29 5664	bernard.despres@cnet.francetelecom.fr
Martin BISIG	OFCOM Switzerland	Tel.: +41 32 3275 741 Fax.:+41 32 3275 777	martin.bisig@bakom.admin.ch
David COURT	ECCA, Brussels BELGIUM	Tel.: +353 1272 2066 Fax: +353 1272 2059	dcourt@connogue.com
Lutz DUNKER	RegTP GERMANY	Tel.: +49 33768 89 129 Fax: +49 33768 89 180	lutz.dunker@regtp.de
Meik GAWRON	RegTP GERMANY	Tel.: +49 33768 89 122 Fax: +49 33768 89 180	meik.gawron@regtp.de
Yrjö HÄMÄLÄINEN	Telecom. Adm. Centre FINLAND	Tel.: +358 9 6966 497 Fax: +358 9 6966 410	yrjo.hamalainen@thk.fi
Wolfgang HEIDRICH	RegTP GERMANY	Tel.: +49 6131 18 2000 Fax: +49 6131 18 5605	wolfgang.heidrich@regtp.de
Heribert HÜNNINGHAUSEN	Kabel Deutschland GERMANY	Tel.: +49 6151 83 4610 Fax: +49 6151 83 4646	heribert.huenninghausen@telekom.de
Terry JEACOCK	Radio Agency UK	Tel.: +44 207 211 0004 Fax.:+44 207 211 0021	terence.jeacock@ties.itu.int
Jorgen KRAGH	Nat.Telecom Agency DENMARK	Tel.: +45 3545 0235	jk@tst.dk
Helmut MÖLLER	RegTP GERMANY	Tel.: +49 6131 18 3121 Fax: +49 6131 18 5629	helmut.moeller@regtp.de
Terry O'LEARY	EBU	Tel.: +41 22 717 2713 Fax: +41 22 747 4713	oleary@ebu.ch
Dieter ORT	Deutsche Telekom GERMANY	Tel.: +49 6151 83 2345 Fax.:+49 6151 83 4945	dieter.ort@telekom.de
Darren ROBERTS	Civil Aviation Authority UK	Tel.: +44 207 832 5108 Fax: +44 207 832 5482	dr@caadap2.demon.co.uk
Alexander SCHWARZ	FAFCISO GERMANY	Tel.: +49 2226 88 2162 Fax.:+49 2226 88 2511	AFmISBwNARFAGE@bwb.org
Jonathan STOTT	BBC R&D UK	Tel.: +44 1737 83 9537 Fax: +44 1737 83 9698	jonathan.stott@rd.bbc.co.uk
Christian STROJ	Fed. Min. for Science and Transp. AUSTRIA	Tel.: +43 1 33181 632 Fax: +43 1 33181 699	christian.stroj@bmv.gv.at
Udo WAGNER	RegTP GERMANY	Tel.: +49 6131 18 5114 Fax.:+49 6131 18 5602	udo.wagner@regtp.de
Rolf WIBE	Norwegian PTT NORWAY	Tel.: +47 2282 4857	rolf.wibe@npt.no
Colin WOOFF	Radio Agency UK	Tel.: +44 208 763 4010 Fax: +44 208 668 9856	wooffc@ra.gtnet.gov.uk
Christoph WÖSTE	RegTP GERMANY	Tel.: +49 6131 18 3429 Fax: +49 6131 18 5629	christoph.woeste@regtp.de
Kenneth YARD	Radio Agency UK	Tel.: +44 207 211 0068 Fax.:+44 207 211 0162	yardk@ra.gtnet.gov.uk
Jörg ZIELKE	RegTP GERMANY	Tel.: +49 30 22480 431 Fax: +49 30 22480 444	joerg.zielke@regtp.de

Number of Attendees: 23

Annex D: Draft liaison statement from ERC to CENELEC

Mr Jean-Yves Boivin
Chairman CLC/SC205A
Electricité de France
Dir. du Développement
3, Rue de Messine
F-75384 Paris Cedex 08

, December 1999

Dear Mr Boivin

At its recent meeting, the European Radiocommunications Committee[1] (ERC) received reports about the work in progress in CENELEC SC 205A and ETSI EP PLT to develop new standards for Power Line Communication/Telecommunication (PLC/PLT) systems. The ERC noted that new PLC/PLT systems are intended to use frequencies below 30 MHz and that the standards under development will include limits for the radiation from the (electricity) distribution cables, with the intention to avoid interference to radiocommunications systems operating in this part of the spectrum.

One of the ERC's main responsibilities is to forward plan and harmonise the efficient use of the radio spectrum in Europe so as to satisfy future spectrum requirements of the European users and industry. There is extensive existing use of the spectrum below 30 MHz because of the unique propagation conditions of radio waves in this frequency range, examples include safety-of-life services, especially those used for aeronautical and maritime operations, national defence systems and broadcasting. In addition, new technology, for example digital radio broadcasting, is expected to lead to growth in the use of this spectrum. The ERC is concerned to ensure existing systems are protected from interference, also to ensure future demands for spectrum can be met. Administrations also have treaty obligations, through the ITU Radio Regulations (RR), to protect radiocommunications. RR S15.12, in particular, requires Administrations to ensure that power and telecommunication distribution networks do not cause harmful interference. The ERC therefore has a major interest in the limits to be included in any standard and is undertaking technical studies to determine what values might be necessary to protect radiocommunications, with the objective to harmonise the national regulations already under development in a number of countries.

The ERC welcomes the proposal from ETSI to hold on January 19, 2000 a meeting between CENELEC, ETSI and the ERC with a view to co-ordinating work programmes and to clarify the responsibilities. A Memorandum of Understanding between ERC and ETSI has been in operation successfully for some time. I understand that there is a co-operation agreement between CENELEC and ETSI as well. So, with these as foundations, this meeting offers an excellent opportunity to initiate efficient co-operation and co-ordination of activities between all the European bodies involved to find a satisfactory solution for a regulatory framework for new PLC/PLT applications.
Finally, as background information, I attach some explanatory notes about the ERC, its mission and structure.

Yours sincerely,

ERC Chairman

Copies : European Commission, ETSI ERM, ETSI EP PLT, CENELEC SC 210A,
CENELEC SC205A WG10

CC: European Commission
Enterprise DG/I

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[1] European Radiocommunications Committee of the "Conférence Européenne des Postes et Télécommunications"

Mr Nicholas Argyris
Wetstraat 200 Rue de la Loi
B-1049 Brussels, Belgium

M. Olly Wheaton
ETSI ERM Chairman
Radiocommunications Agency UK
WHEATONO@ra.gtnet.gov.uk

M. Ronnie Storrs
ETSI ERM/EMC Chairman
Telia
123 86 FARSTA
SWEDEN
ronald.l.storrs@telia.se

M. Georges De Brito
ETSI ERM/RM Chairman
France Telecom
CNET DMR/URF
38-40 rue du Général Leclerc
92 794 Issy Moulineaux Cedex 9
FRANCE
Georges.debrito@cnet.francetelecom.fr

M. August Blunschi
Chairman ETSI EP PLT
Ascom, Belpstrasse 37, CH-3000 Bern 14, Switzerland
August.Blunschi@ASCOM.CH

M. Maarten Vrolijk
Chairman CENELEC SC210A
Philips Corporate Standardization Dept.
Building SAN-5
Kastanjelaan 1
PO Box 218
NL-5600 MD EINDHOVEN
The Netherlands
w.zuidinga@emcinfo.demon.nl

M. Pietro Mirandola
Chairman SC205A WG10
ENEL

Working Group FM
of the European
Radiocommunications
Committee

Doc. FM(2000)035
21.12.99

Naples, 17 – 21 January 2000

Subject: **Use of Frequency Spectrum below 30 MHz**

Origin: **ERO**

Introduction

The potential introduction of power line telecommunications (PLT) applications, ADSL and VDSL technologies has raised some issues of concern to users of the radio frequency spectrum, particularly the possibility of interference from PLT transmissions and others into radiocommunications devices.

Indications are at present that, in general, emissions from the above transmission technologies are likely to fall within frequency ranges below 30 MHz. Due to attenuation in power and telephone lines frequency bands above 10 MHz will probably only be of limited advantages in those systems. Introduction of Spread Spectrum technology has been suggested as a means to meet the protection requirements for the existing and future radiocommunications HF services.

The ERC is the relevant body to inform the standardisation committees about the protection needs of the HF radio services in order that appropriate emission limits are derived for PLT and similar cable transmission systems. WGSE has begun to study the issue and it has been suggested that WG FM should study the actual and future trends in the use of the HF bands in order to identify the utilisation's that should be protected from PLT emissions and other similar technologies. It is suggested that the WG FM could produce a report on the use of the HF bands throughout CEPT. The results of such a work may at a later stage be incorporated in the European Common Allocation Table.

The PLT issues have also been raised within the ITU-R and work on protection ratios etc is under development.

The Task and Options

Developing a table of European Common Frequency Allocations in the frequency range below 29.7 MHz (the current lower limit of ERC Report 25) could be a relatively simple task if it is assumed that the ECA will reflect the current frequency allocations for Region 1 in Article S5 of the ITU Radio Regulations. Determining the actual and planned major utilisation of those allocations may be a more difficult task depending on the level and nature of record keeping of assignments for these bands in individual administrations.

There appear to be at least two options for the WGFM to consider, viz:

1. Conduct a survey of CEPT administrations to determine the major utilisations in the bands below 29.7 MHz;

2. Request that the ERO carries out a comprehensive study of the bands below 29.7 MHz using all the material it has available and produces a report describing actual and future trends in the use of the HF bands in particular below 10 MHz. This activity would most likely also require a survey or questionnaire to all CEPT administrations and major users of the HF spectrum.

Pros and cons of the options

Option 1 is relatively straightforward but someone or a small drafting group would have to be given responsibility for issuing the questionnaire and collecting and compiling the data. The success of the exercise is difficult to guarantee due to uncertainties over the level of relevant information readily available in national administrations.

Option 2: the ERO could develop a report based on liaison activities with the major users and European Administrations. With the results of this work the ERO could compile a draft ECA table, based on the RR and include proposed major utilisations for consideration by the FM Working Group.
The ERO is still likely to face the same problem as in option 1 concerning the availability of information but there is a strong possibility that it could produce a useful and comprehensive overview of the bands.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
09.03.2000

Telecommunications Regulatory Package

Motion for a Resolution

1. Foreword

In 1998, the European Commission addressed to the Member States a Telecommunications Regulatory Package.

The Member States were urged to sustain and develop a policy offering an affordable access to telecommunication services and to the Internet for all citizens.

The implementation of this regulatory package by the Members States has been closely followed up by the Commission. The Fifth Report on the Implementation of the Telecommunications Regulatory Package (COM(1999)537) has been submitted to the Parliament.

The President referred the report to the Committee on Industry, External Trade, Research and Energy (INDU) as the committee responsible, and to the Committee on Legal Affairs and the Internal Market for its opinion.

INDU prepared a draft report presented by rapporteur Reino Kalervo Paasilina. Appended is the provisional text, dated 8 March 2000 of the Motion for a Resolution to be submitted to the European Parliament.

2. Content

The drafted Resolution

- regrets that limited offerings at the level of local loops have prevented the liberalisation to reduce the cost of access to the Internet (3.)
- demands steps to foster unbundled access to telephone and other existing fixed structures, in particular television cable, and to encourage the development of new alternative infrastructure, in particular wireless local loop systems (4.)
- considers that **radio frequencies should not be auctioned** (5.)
- regrets the existing discrepancies between the National Regulatory Authorities of the Member States (9.)
- considers that while the creation of a centralised European Regulatory Authority is not necessary (10.), it would be desirable:
  - to define more clearly at Community level the extent of the competenties of the NRA's, in particular regarding **allocation and use of spectrum for telecommunications** and broadcasting (without prejudice of the specific national rules and institutions for audiovisual policy)
  - to strengthen the current informal co-operation of NRA's ... in the form of a **European System of Telecommunications Regulators**

3. Comments

The Telecommunications Regulatory Package parallels the Green Book on Spectrum policy.
We welcome your comments.

73.

G.Bertels, ON4WF
EUROCOM Chairman

Annex 1

MOTION FOR A RESOLUTION

European Parliament resolution on the Commission communication on the Fifth Report on the Implementation of the Telecommunications Regulatory Package (COM(1999) 537 – 2000/2072(COS))

The European Parliament,

- having regard to the Commission communication (COM(1999) 537 – C5-0112/2000[1],

- having regard to Rule 47 (1) of its Rules of Procedure,

- having regard to the report of the Committee on Industry, External Trade, Research and Energy and to the opinion of the Committee on Legal Affairs and the Internal Market (A5-0000/2000),

1. Welcomes the timely and efficient implementation of the 1998 regulatory package in most member states; regrets however that in some member states delays or incomplete implementations are still observed, and that in some cases implementation is only formal, but not put in practice effectively and would support quick and firm action by the Commision against these breaches of Community Law;

2. Expresses its satisfaction at the fast response of the market to the new possibilities offered by the 1998 regulatory regime and the positive consequences for the consumers that have derived from it;

3. Is deeply concerned at the fact that the limited offerings at the level of the local loop has prevented the liberalisation from providing its full potential to most users, in particular those with lower resources, and from contributing to a reduction of the cost of access to the Internet to the level where it would become affordable to all citizens;

4. Demands therefore that steps be taken to foster all forms of unbundled access to the local telephone loop and to other existing fixed infrastructure, in particular television cable, and also to encourage and facilitate the development and use of new alternative infrastructure, in particular wireless local loop systems, without having to resort to specific legislation on this issue;

5. Notes that the current regime for licences has allowed national implementations to vary without justifiable reason to such an extent that the setting-up of identical services in different member states remains subject to legal uncertainty and widely different schedules, and that cross-border services are in practice non-existent; calls for a strict limitation of the cases where individual licences may be demanded, the systematic availability of "one-stop shopping" procedures, and a mandatory requirement for speedy approvals in those cases where simple declaration of a new service is not sufficient; regrets that the Commission did not include in the report any figures on fees for the use of radio frequencies; reminds that the fees for licenses and authorisations should cover only justified and relevant administrative costs that the use of radio spectrum should be subject only to such charges and fees that are necessary to cover the costs of the radio spectrum management; radio frequencies should not be auctioned, since it has a negative effect on user fees and the spreading and developing of communications services.

6. Considers that operators, in particular incumbents, should provide interconnection and where appropriate co-location or facility-sharing offers on commercial terms, and that overpriced terms, excessive additional requests and procrastination that force other operators to request arbitration from the NRA should be treated as unfair commercial practice and entitle to damages based on the potential turnover or margin

[1] OJ ……..

lost as a retrospective consequence of such behaviour; confirms that the market of interconnection is the correct reference for determining whether an operator has a significant market position;

7. Insists that carrier pre-selection should be implemented in an easy and transparent way for the consumers, and that it should be complemented with easy possiblity to reverse or change it, and clear information on this possibility, on the possibility of call-by-call carrier selection, and transparent pricing information; considers that the availability of carrier pre-selection and number portability should be considered with the interest of the consumer in view;

8. Regrets the absence of co-ordination for the numbering of new services, and the slow progress in the few areas where attempts have been made, such as "freephone" numbers;

9. Regrets that both the statutory powers, the human resources available and the real level of independence of the NRAs, and consequently their efficiency, vary widely from one member state to another; notes however with satisfaction that the existence of a mechanism for solving cross-border disputes has permitted such conflicts being resolved satisfactorily in a reasonable time, and that National Regulatory Authorities (NRAs) have shown their ability and willingness to co-operate;

10. Considers therefore that while the creation of a centralised European Regulatory Authority is not necessary, it would be desirable:
- to define more clearly at Community level the extent of compentences of the NRAs, in particular regarding allocation and use of spectrum for telecommunications and broadcasting (without prejudice of the specific national rules and institutions for audiovisual policy)
- to strengthen the current informal co-operation of NRAs, bilateral and within the "Independent Regulators' Group" in the form of a European System of Telecommunications Regulators;

11. Acknowledges that the liberalisation of the market has not had adverse effects on the availability of universal service as defined in the current Directives, but notes with concern that access to new services, which are very dependent on affordable access to broadband infrastructure does not seem to take up outside of main urban centres, a situation contrary to the need for regional equality and the equal rights of citizens in the society;

12. Congratulates the Commission for its clear analysis of the situation and for having launched a wide-ranging and transparent consultation process. Expects that the desirable actions will be clearly identified and that new legislative proposals are issued quickly, so as to improve the situation and satisfy the legitimate expectations of the consumers and the industry and, in the meantime, avoid legal uncertainty.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
12.04.2000

EUROCOM WG meeting at Ham Radio in Friedrichshafen

I. Invitation

A EUROCOM WG meeting will be held on **Friday 23.06.2000 at 14:00** in the administration building, Messe GmbH, 1st floor (Konferenzsaal) in Friedrichshafen.

Member societies are kindly invited to delegate their representative(s) to this meeting.

II. Agenda

1. Welcome and roll call
2. Appointment of secretary
3. Approval of agenda
4. Review of ongoing events (ON4WF)
5. Topics presented by participants :
   - DARC : proposal for a modification of CEPT TR 61-01 : creation of a beginners' class
   - DARC : proposal for a modification of CEPT TR 61-02 : lowering CW examination speed from 12 wpm to 5 wpm
   - DARC : proposal for an addition to the ITU M-AOQ Draft :

   „3. that for Radio Amateurs operating an Amateur Station <u>only on especially defined frequencies</u> National Authorities may define other knowledge demonstration criteria, in conjunction with the needed operating skills and knowledge of technical parameters for the use of these frequencies."
6. All other business
7. End of meeting (18:00h)

Many thanks to DARC for kindly hosting this EUROCOM meeting.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Attention : new email address : gaston.bertels@chello.be

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
20.04.2000

Green Paper on Radio Spectrum Policy revisited

I. History

In 1998, the European Commission (DGXIII) issued a Green Paper on Radio Spectrum Policy (COM (1998) 596). This was commented in the EUROCOM Newsletter of 16.02.1999.

On 17 March 1999, a public consultation meeting took place in Brussels, where we presented the Amateur Radio service to the participants, insisting on the public interest aspect. See the EUROCOM Newsletter of 20.03.1999.

We also submitted written comments on the Green Paper, which can be downloaded from the European Commission's webpage at the following address :

http://www.ispo.cec.be/spectrumgp/sgpcomment.htm

This was announced in the EUROCOM Newsletter of 13.04.1999.

Meanwhile, the Green Paper was submitted by the European Commission to the European Parliament. The President of the Parliament referred the document to the Committee on Economic and Monetary Affairs and Industrial Policy (ECAM Committee). A Motion for a Resolution was drafted by rapporteur Felipe Camisòn Asensio. See EUROCOM Newsletter of 23.03.1999.

We had the opportunity, through the intervention of MEP Fernando Fernández-Martín, (EA8AK), to propose two amendments to this drafted motion for a resolution :

"6. Whereas non-profit applications of public interest shall be considered with sufficient care;

"15.1. Calls for securing the spectrum for Research, Science and non-profit applications of public interest, such as the Amateur Radio service;"

This was circulated in the EUROCOM Newsletter of 07.04.1999.

The Committee accepted these amendments and the Motion for a Resolution was adopted by the European Parliament. See EUROCOM Newsletters of 23.04.1999 and 05.05.1999.

II. Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper

On 16 November 1999, the European Commission forwarded to Parliament a communication on the results of the public consultation on the Green Paper (COM(1999) 538).

The President of the Parliament referred the communication to the Committee on Industry, External Trade, Research and Energy (ITRE committee).

Rapporteur Konstantinos Alyssandrakis prepared the draft of a Motion for a Resolution.

We suggested to MEP Fernandez-Martin to present an amendment to this draft, explicitely referring to the Amateur Radio service, with the following justification :

"The Amateur Radio service, as defined by the International Telecommunications Union (ITU), is a non-profit service of public interest.

Therefore, it is worthwhile to cite this service as an example of non-commercial users for which sufficient bands are to be kept available."

MEP Fernandez-Martin introduced an amendment to item 7. of the drafted resolution, which now reads as follows :

"7. Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for use by public and private broadcasting ***and by amateur radio licensees****, as well as for passive uses, such as earth observation and radio astronomy or for radio satellite navigation systems."*

III. Motion for a Resolution adopted by the ITRE Committee

On 19 April 2000, the ITRE Committee adopted the Motion for a Resolution, with the amended item 7. as quoted above.

Item 8. of this Motion is also very important :

„8. Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use. "

The Report of the ITRE Committee will be submitted to the European Parliament to be voted upon during the part-session in May 2000.

The text of the Report is appended. Further amendments are still possible.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Attention : new email address : gaston.bertels@chello.be

Annex 1MOTION FOR A RESOLUTION

European Parliament resolution on the Commission communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green paper" (COM(1999) 538 – C5-0113/2000 – 2000/2073(COS))

The European Parliament,

– having regard to the Commission communication (COM(1999) 538 – C5-0113/2000[1]),

– having regard to Rule 47(1) of its Rules of Procedure,

- having regard to its resolution of 4 May 1999 on the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D[2] ,

– having regard to the report of the Committee on Industry, External Trade, Research and Energy and the opinion of the Committee on Regional Policy, Transport and Tourism (A5-0122/2000),

A. Whereas the radio spectrum is a vital and scarce natural resource,

B. Whereas, due to recent technological progress, numerous new applications and services, making use of the radio spectrum, have emerged,

C. Whereas there is an increasing demand for frequency bands, mainly for commercial use, and therefore the balance among the interests of all user groups has to be redefined;

D. Whereas the allocation of frequencies is done within the framework of international organisations, in particular the *World Radiocommunications Conference* (WRC) of the *International Telecommunication Union* (ITU), managed in Europe by the *European Conference of Postal and Telecommunications Administrations* (CEPT)

E. Whereas the European Union has not yet established a Community framework for radio spectrum policy,

F. Whereas the Commission, through the publication of the "Green Paper on Radio Spectrum Policy", launched an extensive public debate on whether the current procedures are still appropriate to uphold the interests of the European Community in radio spectrum allocation;

G. Whereas the Green Paper attracted considerable attention, with more than 140 written contributions from practically all interested sectors,

1. Welcomes the analysis by the Commission of the results of public consultation based on the Green paper.

[1] OJ C not yet published
[2] OJ C279, 1.10.1999, p. 5

2. Stresses that the radio spectrum should be allocated and used both technically and economically efficiently, with extreme care and full consideration of all needs, to the best of the public interest, the latter including the common interest, the development of information and communications technologies in commercial applications and the competitiveness of respective European players on a global scale;

3. Considers that all means for signal transmission must be used to upgrade the capacities of different networks. Sound competition between different operators will offer the largest opportunities for the efficient use of the resources. The digitalisation of TV is one of the most important features for more efficient use of spectrum;

4. Considers also that satellite-based networks can extend interactive connections for the delivery of services for less-favoured or lower density areas and e-commerce services across the Community, thus contributing to regional cohesion and development of the information society; these factors require careful attention to the pan-European spectrum needs of the satellite industry;

5. Stresses that the ultimate goal of any spectrum policy should be to provide the citizens with high quality services and to secure the societal interest. It therefore opposes a purely market-driven approach to such policy.The commercial interest must be duly taken into account as this will guarantee a good use of scarce resources. Market pricing has an important part to play in securing the efficient use of spectrum and encouraging further technological developments. The economic and social value of the use of frequencies must however not only be assessed in the light of the opportunities for the respective user groups to make profits but is highly dependent on the significance of the services which the user group offers, the number of users of these services and the amount of time during which use is made of them. Therefore there must be a combination of commercial interests and the interests of society such as research.

6. Urges the Member States, the Commission and the Council to seek a balance between the interests of commercial and non-commercial frequency users and, in doing so, to take sufficient account of the public interest.

7. Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for use by public and private broadcasting **and by amateur radio licensees**, as well as for passive uses, such as earth observation and radio astronomy or for radio satellite navigation systems;

8. Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use;

9. Welcomes the proposal of the Commission to establish a Spectrum Policy Expert Group (SPEG), comprising regulatory authorities and a balanced composition of representatives from radio spectrum user communities, in particular the transport sector, and from technology enterprises, which will advise the Commission on market, technical and other relevant developments with regard to radio spectrum; points out that the SPEG should become a purely consultative body, provided with transparent structures;

10. Welcomes the intent of the Commission to produce communications on the Community's policy objectives on the various WRC agenda items, and recognises the need to enable the Commission to take a stronger position at WRC where Community policies are

concerned; welcomes the Commission's intention to call upon Member States and the Council to adopt common positions for the Community during the preparatory process in order to be able to hold a stronger position at WRC notably to ensure that GALILEO receives the necessary frequencies, and considers that in the context of increasing competition for a limited spectrum resource technical decisions supported by Member States' administrations in the European Conference of Postal and Telecommunications administrations (CEPT) should accord with established EU policy;

11. Welcomes the intent of the Commission to ensure the availability of information and encourages Member States and all European countries to provide the maximum of such information, to the extent that this does not come in conflict with their national interests.

12. Considers that, although a certain degree of further harmonisation of Community policy on the radio spectrum could be desirable for pan-European services and applications, such as satellite communications systems, it would be hasty and premature to proceed to the establishment of a pan-European regulatory framework at the present stage. National Regulatory Authorities (NRAs) of Member States should retain sufficient flexibility to respond to national, regional and local needs, while co-operating also at a pan-European level;

13. Advocates the drafting of rules empowering the Commission to require Member States to release the frequencies needed for the pan-European services and applications decided by the Council and Parliament; on each occasion, before the Council and Parliament take their decisions on these services and applications, the SPEG should, by way of conclusion, ascertain how many frequencies are needed in what band; rules should also be drafted to ensure that decisions adopted in the CEPT are transposed in the Member States in accordance with the rules applicable to transposition of Community directives;

14. Calls on the Member States to review public use of frequencies, for example by the armed forces, to ascertain whether frequencies could be released by means of more efficient use, for instance by making technical improvements;

15. Recognises the necessity of strategic planning and considers that this planning should be done at the most appropriate level, which can be the regional, the national, the European or the international level;

16. Encourages the Commission, the Council and the Member States to deepen their collaboration with the other European countries as well as with those of the Mediterranean.

17. Supports the principle of set payments for frequency use, the introduction of auctions and general licence fees for commercial uses and services, but believes that the allocation of frequencies cannot be separated from the particular application or service that frequency bands are used for. In this context the principles of spectrum pricing, auctioning and the introduction of a secondary market for radio spectrum can only be appropriate for commercial applications; Member States should harmonise their approach, i.e. whether to auction frequencies or to grant licences; revenues arising from the first two principles should be invested in research and use of new information and communication technologies to further develop the Information Society, instead of being regarded as fiscal income;

18. Encourages, in this respect, the Commission to re-open a debate on mutual recognition of licences for satellite communications within the EU, one serious option to optimise the conditions of development of cross-border broadband services and thereby favour an efficient use of spectrum in Europe;

19. Believes that the Community spectrum policy towards developing countries should be driven by the principles of good governance. It should enable these countries both to develop new services and reserve spectrum for public service purposes;

20. Observes that changes of policy on frequencies must be a long-term process; considers, however, that Community rules on frequency policy should include a clause requiring the provisions to be reviewed after 5 years;

21. Stresses that the European Parliament, as the sole democratically elected Community body, must be granted rights to participate, inter alia, in the performance of permanent duties relating to the Community's future policy on frequencies, and that these rights must at the minimum be equal in scope to any rights of participation vested in the Council;

22. Instructs its President to forward this resolution to the Council, the Commission, the Economic and Social Committee, the Committee of the Regions and to the Member States.

18 April 2000

OPINION OF THE COMMITTEE ON REGIONAL POLICY, TRANSPORT AND TOURISM

for the Committee on Industry, External Trade, Research and Energy

on radiocommunications: Green Paper on radio spectrum policy, results of the public consultation
(COM(1999) 538 – C5-0113/2000 – 2000/2073(COS))

Draftsman: Emmanouil Bakopoulos

…….

CONCLUSIONS

The Committee on Regional Policy, Transport and Tourism calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to incorporate the following conclusions in its draft resolution:

1. Considers that in the context of increasing competition for a limited spectrum resource technical decisions supported by Member States' administrations in the European Conference of Postal and Telecommunications administrations (CEPT) should accord with established EU policy;

2. Urges that those guidelines reflect the prior claim on radio spectrum resources of public safety and public interest use in the transport sector over commercial use;

3. Insists that the transport sector is represented on the radio spectrum policy expert group (SPEG) which the Commission will set up to help it determine Community priorities with respect to the harmonisation of radio spectrum use;

4. Insists that Member states act coherently in the context of the WRC to ensure that GALILEO receives the necessary frequencies;

5. Urges the Commission, in preparing the proposed European Parliament and Council decision, to take full account of the comments submitted by the transport sector in the public consultation exercise especially in view of the fact that adequate access to the spectrum is an operational prerequisite for transport.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
02.05.2000

European Parliament Resolution on Radio Spectrum Policy

I. Motion for a Resolution

In our Newsletter of 20.04.2000, we reviewed our efforts for the defense of the Amateur Radio service in the context of the Spectrum Policy of the European Union (*Green Paper).*

More preciseliy, we related the steps undertaken to draw the attention of the European Parliament and of the European Commission on the necessity to provide sufficient spectrum facilities for our service.

Meanwhile, the Motion for a Resolution, drafted by the ITRE Committee, has been adopted by the Plenary Session of the European Parliament.

II. Resolution on Radio Spectrum Policy adopted by the European Parliament

On 18/05/2000, the Plenary of the European Parliament adopted a resolution on the Commission communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy - Results of the Public Consultation on the Green Paper" (COM(1999) 538 - C5-0113/00 - 2000/2073(COS)).

The text of this resolution is appended.

The amendment we prepared, insisting on the need of sufficient frequency bands to be kept available for use by the Amateur Radio licencees, has been accepted. Items 8. and 9. of the resolution read as follows :

> *8. Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for use by public and private broadcasting and by* ***amateur radio licensees****, as well as for passive uses, such as earth observation and radio astronomy or for radio satellite navigation systems;*
>
> *9. Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use;*

Many thanks to MEP Fernando Fernandez-Martin (EA8AK) for being instrumental in presenting this amendment.

III. EUROCOM meetings at Ham Radio

In our Newsletter of 12/04/2000, we circulated the agenda of the EUROCOM WG meeting convened on **Friday 23.06.2000** in the administration building, Messe GmbH, 1st floor (Konferenzsaal) in Friedrichshafen.

The meeting is now scheduled at **16.00 instead of 14.00** as initially announced.

Moreover, a second EUROCOM meeting is scheduled on **Saturday 24.06.2000 at 14.00** in the Halle 2, Saal C). The purpose of this second meeting is to debate on the future tasks of EUROCOM and on the means to be deployed to insure the defense of the Amateur Radio service within the enlarged European Union.

Member societies are kindly invited to delegate their representative(s) to both these meetings.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Attention : new email address : gaston.bertels@chello.be

Annex 1

Minutes of 18/05/2000 - Provisional Edition

Radio spectrum policy

A5-0122/2000

European Parliament resolution on the Commission communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy - Results of the Public Consultation on the Green paper" (COM(1999) 538 - C5-0113/00 - 2000/2073(COS))

The European Parliament,

- having regard to the Commission communication (COM(1999) 538 - C5-0113/00),

- having regard to Rule 47(1) of its Rules of Procedure,

- having regard to its resolution of 4 May 1999 on the Commission Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D(COM (1998) 596 - C4-0066/99)(1),

- having regard to the report of the Committee on Industry, External Trade, Research and Energy and the opinion of the Committee on Regional Policy, Transport and Tourism (A5-0122/2000),

A. whereas the radio spectrum is a vital and scarce natural resource,

B. whereas, due to recent technological progress, numerous new applications and services, making use of the radio spectrum, have emerged,

C. whereas there is an increasing demand for frequency bands, mainly for commercial use, and therefore the balance among the interests of all user groups has to be redefined;

D. whereas frequencies are allocated within the framework of international organisations, in particular the World Radiocommunications Conference (WRC) of the International Telecommunication Union, and managed in Europe by the European Conference of Postal and Telecommunications Administrations (CEPT)

E. whereas the European Union has not yet established a Community framework for radio spectrum policy,

F. whereas the Commission, through the publication of its "Green Paper on Radio Spectrum Policy" , launched an extensive public debate on whether current procedures are still appropriate to uphold the interests of the European Community in radio spectrum allocation;

G. whereas the Green Paper attracted considerable attention, with more than 140 written contributions from practically all interested sectors,

1. Welcomes the analysis by the Commission of the results of public consultation based on the Green Paper;

2. Stresses that the radio spectrum should be allocated and used efficiently in both technical and economic terms, with extreme care and full consideration of all needs and with utmost respect for the public interest, which includes the common interest, the development of

information and communications technologies in commercial applications and the competitiveness of respective European players on a global scale;

3. Considers that all means for signal transmission must be used to upgrade the capacities of different networks. Sound competition between different operators will offer the largest opportunities for the efficient use of the resources. The digitalisation of TV is one of the most important features for more efficient use of spectrum;

4. Considers also that satellite-based networks can extend interactive connections for the delivery of services for less-favoured or lower density areas and e-commerce services across the Community, thus contributing to regional cohesion and development of the information society; these factors require careful attention to the pan-European spectrum needs of the satellite industry;

5. Considers it necessary to bring forward the release of GSM frequency bands currently occupied by other analogue systems and to provide for detailed procedures for the release of the frequencies to be used for third-generation communication services (UMTS);

6. Stresses that the ultimate goal of any spectrum policy should be to provide the citizens with high quality services and to secure the societal interest. It therefore opposes a purely market-driven approach to such policy.The commercial interest must be duly taken into account as this will guarantee a good use of scarce resources. Market pricing has an important part to play in securing the efficient use of spectrum and encouraging further technological developments. The economic and social value of the use of frequencies must however not only be assessed in the light of the opportunities for the respective user groups to make profits but is highly dependent on the significance of the services which the user group offers, the number of users of these services and the amount of time during which use is made of them. Therefore there must be a balance between commercial interests and the interests of society, such as research

7. Urges the Member States, the Commission and the Council to seek a balance between the interests of commercial and non-commercial frequency users and, in doing so, to take sufficient account of the public interest;

8. Urges the Member States, the Commission and the Council to take concrete measures to ensure the availability of sufficient frequency bands for use by public and private broadcasting and by **amateur radio licensees**, as well as for passive uses, such as earth observation and radio astronomy or for radio satellite navigation systems;

9. Furthermore urges the Member States, the Commission and the Council to protect these bands from interference that would inhibit their designated use;

10. Welcomes the proposal of the Commission to establish a Spectrum Policy Expert Group (SPEG), comprising regulatory authorities and a balanced composition of representatives from radio spectrum user communities, which will advise the Commission on market, technical and other relevant developments with regard to radio spectrum; points out that the SPEG should become a purely consultative body, provided with transparent structures;

11. Welcomes the intention of the Commission to produce communications on the Community's policy objectives on the various WRC agenda items, and recognises the need to enable the Commission to take a stronger position at WRC where Community policies are concerned; welcomes the Commission's

intention to call upon Member States and the Council to adopt common positions for the Community during the preparatory process in order to be able to hold a stronger position at WRC and notably to ensure that GALILEO receives the necessary frequencies, and considers that, in the context of increasing competition for a limited spectrum resource technical decisions supported by Member States" administrations in CEPT should accord with established EU policy;

12. Welcomes the intention of the Commission to ensure the availability of information and encourages Member States and all European countries to provide as much information as possible, to the extent that this does not conflict with their national interests;

13. Considers that, although a certain degree of further harmonisation of Community policy on the radio spectrum could be desirable for pan-European services and applications, such as satellite communications systems, it would be hasty and premature to proceed to the establishment of a pan-European regulatory framework at the present stage. Member States" National Regulatory Authorities should retain sufficient flexibility to respond to national, regional and local needs, while also cooperating at a pan-European level;

14. Advocates the drafting of rules empowering the Commission to require Member States to release the frequencies needed for the pan-European services and applications decided by the Council and Parliament; on each occasion, before the Council and Parliament take their decisions on these services and applications, the SPEG should, by way of conclusion, ascertain how many frequencies are needed in what band; rules should also be drafted to ensure that decisions adopted in the CEPT are transposed in the Member States in accordance with the rules applicable to transposition of Community directives;

15. Calls on the Member States to review public use of frequencies, for example by the armed forces, to ascertain whether frequencies could be released by means of more efficient use, for instance by making technical improvements;

16. Recognises the necessity of strategic planning and considers that this planning should be done at the most appropriate level, whether regional, national, European or international level;

17. Encourages the Commission, the Council and the Member States to deepen their collaboration with the other European countries as well as with those of the Mediterranean;

18. Believes that the allocation of frequencies cannot be separated from the particular application or service that frequency bands are used for. In this context the principles of spectrum pricing, auctioning and the introduction of a secondary market for radio spectrum can only be appropriate for commercial applications; Member States should harmonise their approach, i.e. whether to auction frequencies or to grant licences; revenues arising from the first two principles should be invested in research and use of new information and communication technologies to develop the Information Society further, instead of being regarded as fiscal income;

19. Encourages the Commission, in this respect, to re-open a debate on mutual recognition of licences for satellite communications within the EU, one serious option to optimise the conditions of development of cross-border broadband services and thereby favour an efficient use of

spectrum in Europe;

20. Believes that the Community spectrum policy towards developing countries should be driven by the principles of good governance. It should enable these countries both to develop new services and reserve spectrum for public service purposes;

21. Observes that changes of policy on frequencies must be a long-term process; considers, however, that Community rules on frequency policy should include a clause requiring the provisions to be reviewed after 5 years;

22. Stresses that the European Parliament, as the sole democratically elected Community body, must be granted rights to participate, inter alia, in the performance of permanent duties relating to the Community's future policy on frequencies, and that these rights must at the very least be equal in scope to any rights of participation vested in the Council;

23. Instructs its President to forward this resolution to the Council, the Commission, the Economic and Social Committee, the Committee of the Regions and to the governments of the Member States.

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(1) OJ C 279, 1.10.1999, p. 72.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
01.07.2000

EUROCOM WG meeting of 23/24 June 2000 at Ham Radio in Friedrichshafen

1. Meeting at Ham Radio

As scheduled, the EUROCOM working group gathered at Ham Radio in Friedrichshafen on 23 and 24 June 2000.

DARC had invited representatives of the german Regulatory Authority (RegTP). Mr Bernd-Dieter Wolko (DJ7RT) reported on the outcome of WRC 2000.

The agenda which was circulated in the EUROCOM Newsletter of 12.04.2000 was handled in two days.

The minutes of the meeting are appended.

2. Action

Several calls for action have been included in the minutes.

Parties concerned are invited to take action and to report to the EUROCOM Chairman where appropriate.

3. Thanks

Many thanks to Mr Wolko, DJ7RT for his presentation.
Many thanks to Hilary, G4JKS who kindly accepted to take the minutes and produce the report.
Many thanks to the DARC for hosting the EUROCOM WG meeting.

73

Gaston Bertels, ON4WF
EUROCOM Chairman

Attention : new email address : gaston.bertels@chello.be

Annex 1

Minutes of the EUROCOM WG meeting at „Ham Radio 2000“
in Friedrichshafen 23/24 June 2000

The meeting was held over two days. Present for one or both sessions were:

Chairman: ON4WF
Secretary: G4JKS

Members: DH7RW, DJ1BD, DJ1TO,DJ1ZB, DJ6TJ, DJ7RT, DJ7ZY, DK9HU, DL1VDL, DL3LAE, DL3OAP, G0TWW, G3OZF, G3PSM, GI8AYZ, HA5EA, LA2RR, OE3REB, ON7LX, ON7PC, OZ1IKW, OZ8CY, PA0LOU, PA1LK, PA3AVV, PA7FF, SM6KAT, W4RA, Christina Volmer.

1 Welcome and roll call

The Chairman, Gaston Bertels, ON4WF, welcomed those present, who introduced themselves.

2 Appointment of Secretary

Hilary, G4JKS agreed to take the minutes

3 Approval of agenda

The agenda was approved with the addition of an further agenda item (4) covering a report from Bernd-Dieter Wolko (DJ7RT) of Reg TP, Frequency & International Affairs, on WRC 2000 and the issues for the amateur service.

4 WRC 2000

DJ7RT reported on the outcome of WRC 2000 in respect of the agreed agenda items for WRC 2003 which affect the amateur service. He outlined the necessary preparation at national level and the need for progressing this work within the framework of CEPT.

The current issues on the WRC 2003 agenda relating to amateur radio are:

1.7 To consider the Amateur Radio and Satellite services:

1.7.1 The revision of Article S25 of the Radio Regulations
1.7.2 Review of Article S19 of the Radio Regulations
1.7.3 Review of the terms and definition of Article S1 of the Radio Regulations

1.23 Realignment of 7MHz band

1.7.1 The revision of Article S25 of the Radio Regulations

Provisions of the Radio Regulations can only be amended by a WRC. A DARC proposal for the revision of S25, following the agreed IARU position and submitted through the German PTT, has been accepted by the European Radio Office, and this has now become a European recommendation to WRC 2003.

W4RA reminded the meeting that there was an agreed IARU policy for the revision of S25 and that all societies had agreed the proposal. All national societies should propose the agreed IARU text to their PTTs if they had not already done so.

Action: All

G3OZF then questioned the position on M-XXX, which is where it had been proposed that any reference to a requirement for Morse code competence will exist.

W4RA confirmed that it was intended that the requirements for operator qualifications for an amateur licence should be incorporated into the Radio Regulations by reference. The relevant draft reference document was now a PDNR known as M-AOQ and was being considered by Working Party 8A (Study Group 8).

W4RA confirmed that the text of PDNR M-AOQ can still be amended and the AC will be considering its position on this in September. The draft has been sent to the Regions and is available for review by national societies. Following questions about the circulation of the document in Region 1, it was confirmed that the document will now be circulated by PA0LOU to national societies by e-mail. National societies were asked to make input to IARU Region 1 and to appraise their PTTs of their views.

Action: PA0LOU/All

1.7.2 Review of Article S19 of the Radio Regulations

This agenda item deals with increasing the flexibility available to national administrations in issuing callsigns. It is included on the WRC 2003 agenda at the request of the Finnish authorities.

1.7.3 Review of the terms and definition of Article S1 of the Radio Regulations

This agenda item relates to the definition of an amateur station. DARC wishes to see the antenna included specifically as part of the definition of an amateur station, as it was felt this could clarify some issues relating to planning.

Any further input from member societies should be made via their relevant national authority's National Preparatory Group.

1.23 Realignment of 7MHz band

This agenda item concerns realignment of the 7MHz band, to attempt to secure a common exclusive allocation to the Amateur Service of more than the present 100 kHz.

5 Review of ongoing events

Gaston Bertels, ON4WF, gave an outline of developments in Europe.

5.1 R&TTE Directive

This Directive came into effect on 8th April, and is now in the process of being implemented in the various countries. Various societies present reported on the position in their particular countries:

Hungary – full implementation of the Directive, even although not part of the Eu
Belgium – steps have been taken for the Directive's requirements to be implemented
Germany – the requirements have been incorporated into law
Holland – fully implemented
UK – discussion document has been produced

5.2 EMF

In March 1999, a European Parliament voted a Recommendation to the Council to invite the Member States to lay down minimum distances from public buildings, housing and workplaces for high-voltage transmission lines, radar equipment and broadcasting stations, as well as cellular phone base stations. Products should now have safety distances displayed on the product. Further work to understand the effect on health is being encouraged.

Only one region in Belgium is now implementing the proposed guidelines on minimum distances. As far as is known, this is so far the only case of implementation of these recommendations. The limits include a field strength limit of 24mW/square meter.

Gaston asked national societies to send to him any information on how this recommendation was being handled.

Action: All

In Switzerland it was reported that administrations have differentiated the field strength limits between stations operating for more than 800 hours per year and those operating for less than 800 hours per year.

5.3 Spectrum Policy issues

Spectrum policy issues had been covered in the last two Eurocom Newsletters (dated 20.4.00 and 2.5.00)

5.4 Auction of frequencies

In a Motion to the European Commission, the European Parliament had discouraged the auctioning of frequencies for all applications of public interest. The EP has repeatedly cited the Amateur Radio service as being of public interest.

6 Topics presented by participants

6.1 DARC Proposal for a modification of CEPT TR61/01 – creation of a beginner's class licence.

There was discussion on whether there should be a common form of beginners class licence, harmonised within CEPT. A review of the existing arrangements amongst those present showed a wide variation of practice. The meeting concluded that at present our interests were best served by allowing different approaches to develop, and not at this stage forcing consistency between countries.

Societies were asked to provide a profile of their beginners licences to Gaston, for inclusion in the EUROCOM Newsletter.

Action: All

6.2 DARC proposal for modification of CEPT T/R61-02 lowering the CW examination speed from 12 wpm to 5 wpm.

There are two separate issues here:

a) The policy on Morse capability requirements, which it is proposed will be enshrined in M-AOQ. This affects the longer term (after WRC 2003) requirement for Morse competence as a requirement for an HF licence.
b) The position within CEPT on what Morse speed shall be required for T/R61. T/R61-01 governing temporary operation in another country does not specify a specific speed of Morse capability. T/R 61-02, covering HAREC, refers to 12 wpm as the Morse requirement for CEPT Class 1.

The DARC proposal seeks to amend (b) to 5 wpm in T/R61-02. Most were in favour of 5 wpm for CEPT Class 1 in T/R61-02 although Hungary had reservations as it could allow alien operators to obtain a full Class 1 licence with a Morse qualification at 5 wpm, when local nationals are required to show a 12 wpm capability.

6.3 DARC proposal for an addition to the ITU M-AOQ draft.

DARC wanted to add a third clause under the draft recommendation stating:

„3. that for Radio Amateurs operating an Amateur Station only on especially defined frequency bands, national authorities may define other knowledge demonstration criteria in conjunction with the needed operating skills and knowledge of technical parameters for the use of these frequencies."

DARC explained that the intention was to allow for substitution of some of the criteria in the existing list of knowledge (clause 2) or additions to the list.

The RSGB argued that the original list discussed at Lillehammer was intended to be sufficiently broad to allow national authorities scope for flexibility. However, it was noted that the list in the PDNR was more definitive. In particular the existence of radio telegraphy as a general requirement in the PDNR was clearly an error and needed to be corrected.

After a general discussion it was agreed that no concensus could be reached. Any Society inputs to this issue should be made to PA0LOU who would input them to the study group headed by Paul Rinaldo, W4RI.

7 AOB

OZ8CY reported on the new draft EMC Directive, explaining that the exemption for amateur radio equipment had disappeared from the new draft. There were also concerns that the criteria for

determining which equipment came within scope of the Directive had been relaxed, which was a major concern to the amateurs. This needs to be raised by national societies with their national authorities.

Action: All

In conclusion, ON4WF thanked DARC for hosting the meeting.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter
11.07.2000

Council Recommendation on the exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

1. Genesis

- 11/06/98 : the European Commission issues a proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (Com(1998)268). A maximum permissible exposure level should be laid down, to be achieved over a ten-year period.
- 06/11/98 : the EP Committee on the Environment, Public Health and Consumer Protection (ENVI Committee) issues a draft report (PE 228.570), presented by rapporteur Gianni Tamino. Several amendments tend to set much more stringent limits. For the frequency range 400 kHz - 300 GHz, the permissible E-field strength would be lowered to 1 V/m, whereas the original proposal was 28 V/m.
- 08.01.99 : a EUROCOM Newsletter draws the attention on the unacceptable limits set forth in the Tamino Report. Several IARU societies and services immediately alert influential interested parties. See the EUROCOM Newsletters of 18.01.99 and 02.02.99.
- 18.02.99 : the ENVI Committee adopts the Tamino Report but rejects the amendment bearing the 1 V/m limit. See EUROCOM Newsletter of 18.02.99.
- 10.03.99 : the European Parliament approves the proposal for a Council Recommendation with several amendments (EP100.399). See EUROCOM Newsletter of 20.03.99.
- 12.07.99 : the Council of the European Union issues Recommendation 1999/519/EC which is published in the Official Journal of the European Communities of 30.07.99.

2. The Recommendation

Excerpts:

- "(10) ... advice on this matter has been given by the International Commission on Non-Ionising Radiation Protection (**ICNIRP**) and has been endorsed by the Commission's Scientific Steering Committee..."
- "(13) ... interference problems with **pacemakers** may occur at levels below the recommended reference levels and should therefore be the object of appropriate precautions which, however, are not within the scope of this recommendation and are dealt with in the context of legislation on electromagnetic compatibility and medical devices"
- "(16) Measures by the Member States in this area, whether binding or non-binding, and the way in which they have taken account of this recommendation should be the object of **reports** at national and Community level"

- "... Member States ... should ... aim to achieve respect of the **basic restrictions** given in Annex II for public exposure ...
- " ... Member States ... should take into account the **reference levels** given in Annex III for exposure assessment purposes or, when they exist, as far as they are recognised by the Member State, European or national standards based on agreed scientifically proven measurement and calculation procedures designed to evaluate compliance with the basic restrictions"
- " ... Member States ... may take into account criteria, where appropriate, such **as duration of the exposure**, exposed parts of the body, age and health status of the public"
- " ... Member States ... should prepare reports on the experience obtained with measures that they take in the field covered by this recommendation and should inform the Commission thereof **after a period of three years** following the adoption of this recommendation, indicating how it has been taken into account in these measures"
- " ... The Council ... invites the Commission to ... keep the matters covered by this recommendation under review, with a view to its revision and updating, taking into account also possible effects, which are currently the object of research, including relevant aspects of precaution and to prepare a report, **within five years**, taking into account the reports of the Member States and the latest scientific data and advice".

3. Follow up

The significance of this Recommendation and its implications on the development, within the European Union, of a framework of measures with regard to electromagnetic fields are evident.

Therefore, we invite the IARU Member Societies to watch carefully for any initiatives of the Member States in this domain.

The EUROCOM WG Chairman would appreciate to be informed by the Member Societies on this important issue.

4. The text

The text of the Recommendation has not been made available by the European Commission in electronic format.

We produced an electronic version. This 13 pages document is appended in compressed format (zipped).

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex 1

COUNCIL RECOMMENDATION
of 12 July 1999
on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)
(1999/519/EC)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 152(4), second subparagraph,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament(1),

Whereas:

(1) In accordance with point (p) of Article 3 of the Treaty, Community action must include a contribution to the attainment of a high level of health protection; the Treaty also makes provision for protecting the health of workers and of consumers;

(2) In its resolution of 5 May 1994 on combating the harmful effects of non-ionising radiation(2), the European Parliament called on the Commission to propose legislative measures seeking to limit the exposure of workers and the public to non-ionising electromagnetic radiation;

(3) Community minimum requirements for the protection of health and safety of workers in relation to electromagnetic fields exist for work with display screen equipment(3); Community measures were introduced to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding(4) which oblige, inter alia, employers to assess activities which involve a specific risk of exposure to non-ionising radiation; minimum requirements have been proposed for the protection of workers from physical agents(5) which include measures against non-ionising radiation; whereas, therefore, this recommendation does not address the protection of workers against occupational exposure to electromagnetic fields;

(4) It is imperative to protect members of the general public within the Community against established adverse health effects that may result as a consequence of exposure to electromagnetic fields;

(5) Measures with regard to electromagnetic fields should afford all Community citizens a high level of protection; provisions by Member States in this area should be based on a commonly agreed framework, so as to contribute to ensuring consistency of protection throughout the Community;

(6) In accordance with the principle of subsidiarity, any new measure taken in an area which does not fall within the exclusive competence of the Community, such as non-ionising radiation protection of the public, may be taken up by the Community only if, by reason of the scale or effects of the proposed action, the objectives proposed can be better achieved by the Community than by Member States;

(7) Actions on limiting the exposure of the general public to electromagnetic fields should be balanced with the other health, safety and security benefits that devices emitting electromagnetic fields bring to the quality of life, in such areas as telecommunications, energy and public security;

(8) There is a need to establish by means of recommendations addressed to Member States a Community framework with regard to exposure to electromagnetic fields with the objective of protecting the public;

(9) This recommendation has as its objective the protection of the health of the public and it therefore applies, in particular, to relevant areas where members of the public spend significant time in relation to the effects covered by this recommendation;

(10) The Community framework, which draws on the large body of scientific documentation that already exists, must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; recalling that only established effects have been used as the basis for the recommended limitation of exposure; advice on this matter has been given by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee; the framework should be regularly reviewed and reassessed in the light of new knowledge and

developments in technology and applications of sources and practices giving rise to exposure to electromagnetic fields;

(11) Such basic restrictions and reference levels should apply to all radiations emitted by electromagnetic fields with the exception of optical radiation and ionising radiation; for optical radiation the relevant scientific data and advice still require further consideration, and for ionising radiation Community provisions already exist;

(12) In order to assess compliance with the basic restrictions provided in this recommendation, the national and European bodies for standardisation (e.g. Cenelec, CEN) should be encouraged to develop standards within the framework of Community legislation for the purposes of the design and testing of equipment;

(13) Adherence to the recommended restrictions and reference levels should provide a high level of protection as regards the established health effects that may result from exposure to electromagnetic fields but such adherence may not necessarily avoid interference problems with, or effects on the functioning of, medical devices such as metallic protheses, cardiac pacemakers and defibrillators, cochlear implants and other implants; interference problems with pacemakers may occur at levels below the recommended reference levels and should therefore be the object of appropriate precautions which, however, are not within the scope of this recommendation and are dealt with in the context of legislation on electromagnetic compatibility and medical devices;

(14) In accordance with the principle of proportionality, this recommendation provides general principles and methods for the protection of members of the public while leaving it to the Member States to provide for detailed rules as regards the sources and practices which give rise to exposure to electromagnetic fields and the classification, as work-related or not, of conditions of exposure of individuals, in accordance with Community provisions concerning the safety and health protection of workers;

(15) Member States may, in accordance with the Treaty, provide for a higher level of protection than that set out in this recommendation;

(16) Measures by the Member States in this area, whether binding or non-binding, and the way in which they have taken account of this recommendation should be the object of reports at national and Community level;

(17) In order to increase awareness of the risks of, and measures of protection against, electromagnetic fields, Member States should promote the dissemination of information and rules of practice in this field, in particular with regard to the design, installation and use of equipment, so as to aim at obtaining levels of exposure that do not exceed the recommended restrictions;

(18) Attention should be paid to achieving appropriate communication and understanding regarding the risks related to electromagnetic fields, while taking into account public perceptions of such risks;

(19) The Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection, taking into account the aspect of precaution, and should provide for regular scrutiny and review with an assessment being made at regular intervals in the light of guidance issued by competent international organisations, such as the International Commission on Non-Ionising Radiation Protection,

HEREBY RECOMMENDS THAT:

I. For the purpose of this recommendation Member States should assign to the physical quantities listed in Annex I.A the meanings given to them therein.

II. Member States, in order to provide for a high level of health protection against exposure to electromagnetic fields, should:

(a) adopt a framework of basic restrictions and reference levels using Annex I.B as the basis;

(b) implement measures according to this framework, in respect of sources or practices giving rise to electromagnetic exposure of the general public when the time of exposure is significant with the exception of exposure for medical purposes where the risks and benefits of exposure, above the basic restrictions, must be properly weighed;

(c) aim to achieve respect of the basic restrictions given in Annex II for public exposure.

III. Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II:

(a) should take into account the reference levels given in Annex III for exposure assessment purposes or, when they exist, as far as they are recognised by the Member State, European or national standards based on agreed scientifically proven measurement and calculation procedures designed to evaluate compliance with the basic restrictions;

(b) should evaluate situations involving sources of more than one frequency in accordance with the formulae set out in Annex IV, both in terms of basic restrictions and reference levels;

(c) may take into account criteria, where appropriate, such as duration of the exposure, exposed parts of the body, age and health status of the public.

IV. Member States should consider both the risks and benefits in deciding whether action is required or not, pursuant to this recommendation, when deciding on policy or adopting measures on exposure of members of the public to electromagnetic fields.

V. Member States, in order to increase understanding of risks and protection against exposure to electromagnetic fields should provide, in an appropriate format, information to the public on the health impact of electromagnetic fields and the measures taken to address them.

VI. Member States, in order to enhance knowledge about the health effects of electromagnetic fields, should promote and review research relevant to electromagnetic fields and human health in the context of their national research programmes, taking into account Community and international research recommendations and efforts from the widest possible range of sources.

VII. Member States, in order to contribute to the establishment of a consistent system of protection against risks of exposure to electromagnetic fields, should prepare reports on the experience obtained with measures that they take in the field covered by this recommendation and should inform the Commission thereof after a period of three years following the adoption of this recommendation, indicating how it has been taken into account in these measures,

HEREBY INVITES the Commission to

1. Work towards the establishment of European standards as referred to in section III(a), including methods of calculation and measure.

2. Encourage research into long and short-term effects of exposure to electromagnetic fields at all relevant frequencies in the implementation of the current research framework programme.

3. Continue to participate in the work of international organisations competent in this field and promote the establishment of an international consensus in guidelines and advice on protective and preventive measures.

4. Keep the matters covered by this recommendation under review, with a view to its revision and updating, taking into account also possible effects, which are currently the object of research, including relevant aspects of precaution and to prepare a report, within five years, taking into account the reports of the Member States and the latest scientific data and advice.

Done at Brussels, 12 July 1999.

For the Council

The President

S. NIINISTÖ

(1) OJC 175, 21.6.1999.
(2) OJ C 205, 25.7.1994, p. 439.
(3) OJ L 156, 21.6.1990, p. 14.
(4) OJ L 348, 28.11.1992, p. 1.
(5) OJC 77, 18.3.1993, p. 12 and OJC 230, 19.8.1994, p.3.

ANNEX I

DEFINITIONS

For the purposes of this recommendation, the term electromagnetic fields (EMF) includes static fields, extremely low frequency (ELF) fields and radiofrequency (RF) fields, including microwaves, encompassing the frequency range of 0 Hz to 300 GHz.

A. Physical quantities

In the context of EMF exposure, eight physical quantities are commonly used:

Contact current (IC) between a person and an object is expressed in amperes (A). A conductive object in an electric field can be charged by the field.

Current density (J) is defined as the current flowing through a unit cross section perpendicular to its direction in a volume conductor such as the human body or part of it, expressed in amperes per square metre (A/m^2).

Electric field strength is a vector quantity (E) that corresponds to the force exerted on a charged particle regardless of its motion in space. It is expressed in volts per metre (V/m).

Magnetic field strength is a vector quantity (H), which, together with the magnetic flux density, specifies a magnetic field at any point in space. It is expressed in amperes per metre (A/m).

Magnetic flux density is a vector quantity (B), resulting in a force that acts on moving charges, it is expressed in teslas (T). In free space and in biological materials, magnetic flux density and magnetic field strength can be interchanged using the equivalence $1\ A\ m^{-1} = 4\pi\ 10^{-7}\ T$.

Power density (S) is the appropriate quantity used for very high frequencies, where the depth of penetration in the body is low. It is the radiant power incident perpendicular to a surface, divided by the area of the surface and is expressed in watts per square metre (W/m^2).

Specific energy absorption (SA) is defined as the energy absorbed per unit mass of biological tissue, expressed in joules per kilogram (J/kg). In this recommendation it is used for limiting non-thermal effects from pulsed microwave radiation.

Specific energy absorption rate (SAR) averaged over the whole body or over parts of the body, is defined as the rate at which energy is absorbed per unit mass of body tissue and is expressed in watts per kilogram (W/kg). Whole body SAR is a widely accepted measure for relating adverse thermal effects to RF exposure. Besides the whole body average SAR, local SAR values are necessary to evaluate and limit excessive energy deposition in small parts of the body resulting from special exposure conditions. Examples of such conditions are: a grounded individual exposed to RF in the low MHz range and individuals exposed in the near field of an antenna.

Of these quantities, magnetic flux density, contact current, electric and magnetic field strengths and power density can be measured directly.

B. Basic restrictions and reference levels

For the application of restrictions based on the assessment of possible health effects of electromagnetic fields, differentiation should be made between basic restrictions and reference levels.

Note:

These basic restrictions and reference levels for limiting exposure have been developed following a thorough review of all published scientific literature. The criteria applied in the course of the review were designed to evaluate the credibility of the various reported findings; only established effects were used as a basis for the proposed exposure restrictions. Induction of cancer from long-term EMF exposure was not considered to be established. However, since there are safety factors of about 50 between the threshold values for acute effects and the basis restrictions, this recommendation implicitly covers possible long-term effects in the whole frequency range.

Basic restrictions. Restrictions on exposure to time-varying electric, magnetic, and electromagnetic fields which are based directly on established health effects and biological considerations are termed "basic restrictions". Depending upon the frequency of the field, the physical quantities used to specify these restrictions are magnetic flux density (B), current density (J), specific energy absorption rate

(SAR), and power density (S). Magnetic flux density and power density can be readily measured in exposed individuals.

Reference levels. These levels are provided for practical exposure-assessment purposes to determine whether the basic restrictions are likely to be exceeded. Some reference levels are derived from relevant basic restrictions using measurements and/or computational techniques and some reference levels address perception and adverse indirect effects of exposure to EMFs. The derived quantities are electric field strength (E), magnetic field strength (H), magnetic flux density (B), power density (S), and limb current (I_L). Quantities that address perception and other indirect effects are (contact) current (I_c) and, for pulsed fields, specific energy absorption (SA). In any particular exposure situation, measured or calculated values of any of these quantities can be compared with the appropriate reference level. Respect of the reference level will ensure respect of the relevant basic restriction. If the measured value exceeds the reference level, it does not necessarily follow that the basic restriction will be exceeded. Under such circumstances, however, there is a need to establish whether there is respect of the basic restriction.

Quantitative restrictions on static electric fields are not given in this recommendation. However, it is recommended that annoying perception of surface electric charges and spark discharges causing stress or annoyance should be avoided.

Some quantities such as magnetic flux density (B) and power density (S) serve both as basic restrictions and reference levels, at certain frequencies (see Annexes II and III).

ANNEX II

BASIC RESTRICTIONS

Depending on frequency, the following physical quantities (dosimetric/exposimetric quantities) are used to specify the basic restrictions on electromagnetic fields:

- between 0 and 1 Hz basic restrictions are provided for magnetic flux density for static magnetic fields (0 Hz) and current density for time-varying fields up to 1 Hz, in order to prevent effects on the cardiovascular and central nervous system,

- between 1 Hz and 10 MHz basic restrictions are provided for current density to prevent effects on nervous system functions,

- between 100 kHz and 10 GHz basic restrictions on SAR are provided to prevent whole-body heat stress and excessive localised heating of tissues. In the range 100 kHz to 10 MHz, restrictions on both current density and SAR are provided,

- between 10 GHz and 300 GHz basic restrictions on power density are provided to prevent heating in tissue at or near the body surface.

The basic restrictions, given in Table 1, are set so as to account for uncertainties related to individual sensitivities, environmental conditions, and for the fact that the age and health status of members of the public vary.

Table 1

Basic restrictions for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz)

Frequency range	Magnetic flux density (mT)	Current density (mA/m2) (rms)	Whole body average SAR (W/kg)	Localised SAR (head and trunk) (W/kg)	Localised SAR (limbs) (W/kg)	Power density, S (W/m²)
0 Hz	40	--	--	--	--	--
>0-1 Hz	--	8	--	--	--	--
1-4 Hz	--	8/f	--	--	--	--
4 - 1000 Hz	--	2	--	--	--	--
1000 Hz -100 kHz	--	f/500	--	--	--	--
100 kHz - 10 MHZ	--	f/500	0.08	2	4	--
10 MHZ - 10 GHz	--	--	0.08	2	4	--
10 - 300GHz	--	--	--	--	--	10

Notes:

1. f is the frequency in Hz.

2. The basic restriction on the current density is intended to protect against acute exposure effects on central nervous system tissues in the head and trunk of the body and includes a safety factor. The basic restrictions for ELF fields are based on established adverse effects on the central nervous system. Such acute effects are essentially instantaneous and there is no scientific justification to modify the basic restrictions for exposure of short duration. However, since the basic restriction refers to adverse effects on the central nervous system, this basic restriction may permit higher current densities in body tissues other than the central nervous system under the same exposure conditions.

3. Because of electrical inhomogeneity of the body, current densities should be averaged over a cross section of 1 cm^2 perpendicular to the current direction.

4. For frequencies up to 100 kHz, peak current density values can be obtained by multiplying the rms value by $\sqrt{2}$ (~1,414). For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $f = 1/(2t_p)$.

5. For frequencies up to 100 kHz and for pulsed magnetic fields, the maximum current density associated with the pulses can be calculated from the rise/fall times and the maximum rate of change of magnetic flux density. The induced current density can then be compared with the appropriate basic restriction.

6. All SAR values are to be averaged over any six-minute period.

7. Localised SAR averaging mass is any 10g of contiguous tissue; the maximum SAR so obtained should be the value used for the estimation of exposure. These 10g of tissue are intended to be a mass of contiguous tissue with nearly homogeneous electrical properties. In specifying a contiguous mass of tissue, it is recognised that this concept can be used in computational dosimetry but may present difficulties for direct physical measurements. A simple geometry such as cubic tissue mass can be used provided that the calculated dosimetric quantities have conservative values relative to the exposure guidelines.

8. For pulses of duration tp the equivalent frequency to apply in the basic restrictions should be calculated as $f = 1/(2t_p)$. Additionally, for pulsed exposures, in the frequency range 0,3 to 10 GHz and for localised exposure of the head, in order to limit and avoid auditory effects caused by thermoelastic expansion, an additional basic restriction is recommended. This is that the SA should not exceed 2mJ kg^{-1} averaged over 10 g of tissue.

ANNEX III

REFERENCE LEVELS

Reference levels of exposure are provided for the purpose of comparison with values of measured quantities. Respect of all recommended reference levels will ensure respect of basic restrictions.

If the quantities of measured values are greater than the reference levels, it does not necessarily follow that the basic restrictions have been exceeded. In this case, an assessment should be made as to whether exposure levels are below the basic restrictions.

The reference levels for limiting exposure are obtained from the basic restrictions for the condition of maximum coupling of the field to the exposed individual, thereby providing maximum protection. A summary of the reference levels is given in Tables 2 and 3. The reference levels are generally intended to be spatially averaged values over the dimension of the body of the exposed individual, but with the important proviso that the localised basic restrictions on exposure are not exceeded.

In certain situations where the exposure is highly localised, such as with hand-held telephones and the human head, the use of reference levels is not appropriate. In such cases respect of the localised basic restriction should be assessed directly.

Field levels

Table 2

Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (µT)	Equivalent plane wave power density S_{eq} (W/m²)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10,000	$3.2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8 – 25 Hz	10,000	4,000/f	5,000/f	-
0.025 - 0.8 kHz	250/f	4/f	5/f	-
0.8 – 3 kHz	250/f	5	6.25	-
3 – 150 kHz	87	5	6.25	-
0.15 - 1 MHZ	87	0.73/f	0.92/f	-
1-10 MHZ	$87/f^{1/2}$	0.73/f	0.92/f	-
10 – 400 MHZ	28	0.073	0.092	2
400 - 2000 MHZ	$1.375\ f^{1/2}$	$0.0037\ f^{1/2}$	$0.0046\ f^{1/2}$	f/200
2 – 300 GHz	61	0.16	0.20	10

Notes:

1. f as indicated in the frequency range column.

2. For frequencies between 100 kHz and 10 GHz, S_{eq}, E², H², and B² are to be averaged over any six-minute period.

3. For frequencies exceeding 10 GHz, E², H², and B² are to be averaged over any $68/f^{1.05}$ -minute period (f in GHz).

4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

Note:

No higher reference levels on exposure to ELF fields are provided when exposures are of short duration (see Note 2 of Table 1). In many cases, when the mesured values exceed the reference level, it does not necessarily follow that the basic restriction will be exceeded. Provided that adverse health impacts of indirect effects of exposure (such as microshocks) can be avoided, it is recognized that the general-public reference levels can be exceeded provided that the basic restriction on the current density is not surpassed. In many practical exposure situations external ELF fields at the reference levels will induce current densities in central nervous-system tissues that are below the basic restrictions. Also it is recognized that a number of common devices emit localized fields in excess of the reference levels. However, this generally occurs under conditions of exposure where the basic retrictions are not exceeded because of weak coupling between the field and the body.

For peak values, the following reference levels apply to the E-field strength (V/m), H-field (A/m) and the B-field (μT):

- for frequencies up to 100 kHz, peak reference values are obtained by multiplying the corresponding rms values by $\sqrt{2}$ (~1,414). For pulses of duration t_p the equivalent frequency to apply should be calculated as $f = 1/(2t_p)$,
- for frequencies between 100 kHz and 10 MHz peak reference values are obtained by multiplying the corresponding rms values by 10^{α} ,where $\alpha = (0.665 \log(f/10^5) + 0.176)$, f in Hz,
- for frequencies between 10 MHz and 300 GHz peak reference values are obtained by multiplying the corresponding rms values by 32.

Note:

Generally, with regard to pulsed and/or transient fields at low frequencies, there are frequency-dependent basic restrictions and reference levels from which a hazard assessment and exposure guidelines on pulsed and/or transient sources can be derived. A conservative approach involves representing a pulsed or transient EMF signal as a Fourier spectrum of its components in each frequency range, which can then be compared with the reference levels for those frequencies. The summation formulae for simultaneous exposure to multiple frequency fields can also be applied for the purposes of determining compliance with the basic restrictions.

Although little information is available on the relation between biological effects and peak values of pulsed fields, it is suggested that, for frequencies exceeding 10 MHz, S_{eq} as averaged over the pulse width should not exceed 1000 times the reference levels or that field strengths should not exceed 32 times the fields strength reference levels. For frequencies between about 0,3 GHz and several GHz and for localised exposure of the head, in order to limit or avoid auditory effects caused by thermoelastic expansion, the specific absorption from pulses must be limited. In this frequency range, the threshold SA of 4-16 mJ kg^{-1} for producing this effect corresponds, for 30-μ.s pulses, to peak SAR values of 130-520 W kg^{-1} in the brain. Between 100 kHz and 10 MHz, peak values for the fields strengths are obtained by interpolation from the 1,5-fold peak at 100 kHz to the 32-fold peak at 10 MHz.

Contact currents and limb currents

For frequencies up to 110 MHz additional reference levels are recommended in order to avoid hazards due to contact currents. The contact current reference levels are presented in Table 3. The reference levels on contact current were set to account for the fact that the threshold contact currents that elicit biological responses in adult women and children are approximately two-thirds and one-half, respectively, of those for adult men.

Table 3

Reference levels for contact currents from conductive objects (f in kHz)

Frequency range	Maximum contact current (mA)
0 Hz - 2.5 kHz	0.5
2.5 kHz - 100 kHz	0.2 f
100 kHz - 110 MHZ	20

For the frequency range 10 MHz to 110 MHz, a reference level of 45 mA in terms of current through any limb is recommended. This is intended to limit the localised SAR over any six-minute period.

ANNEX IV

EXPOSURE FROM SOURCES WITH MULTIPLE FREQUENCES

In situations where simultaneous exposure to fields of different frequencies occurs, the possibility that these exposures will be additive in their effects must be considered. Calculations based on such additivity should be performed separately for each effect; thus separate evaluations shoud be made for thermal and electrical stimulation effects on the body.

Basic restrictions

In the case of simultaneous exposure to fields of different frequencies, the following criteria should be satisfied in terms of the basic restrictions.

For electric stimulation, relevant for frequencies from 1 Hz up to 10 MHz, the induced current densities should be added according to:

$$\sum_{i=1Hz}^{10MHz} \frac{J_i}{J_{L,i}} \leq 1$$

For thermal effects, relevant from 100 kHz, specific energy absorption rates and power densities should be added according to:

$$\sum_{i=100kHz}^{10GHz} \frac{SAR_i}{SAR_L} + \sum_{i>10GHz}^{300GHz} \frac{S_i}{S_L} \leq 1$$

where

J_i is the current density at frequency i;

$J_{L,i}$ is the current density basic restriction at frequency i as given in Table 1;

SAR_i is the SAR caused by exposure at frequency i;

SAR_L is the SAR basic restriction given in Table 1;

S_i is the power density at frequency i;

S_L is the power density basic restriction given in Table 1.

Reference levels

For application of the basic restrictions, the following criteria regarding reference levels of field strengths should be applied.

For induced current densities and electrical stimulation effects, relevant up to 10 MHz, the following two requirements should be applied to the field levels:

$$\sum_{i=1Hz}^{1MHz} \frac{E_i}{E_{L,i}} + \sum_{i>1MHz}^{10MHz} \frac{E_i}{a} \leq 1$$

and

$$\sum_{j=1Hz}^{150kHz} \frac{H_j}{H_{L,j}} + \sum_{j>150kHz}^{10MHz} \frac{H_j}{b} \leq 1$$

where

E_i is the electric field strength at frequency i;

E_L, i is the electric field strength reference level from Table 2;

H_j is the magnetic field strength at frequency j;

$H_{L,j}$ is the magnetic field strength reference level from Table 2;

a is 87 V/m and b is 5 A/m (6,25 µT).

Compared to the ICNIRP guidelines(1) which deal with both occupational and general public exposure, cut off points in the summations correspond to exposure conditions for members of the public.

The use of the constant values (a and b) above 1 MHz for the electric field and above 150 kHz for the magnetic field is due to the fact that the summation is based on induced current densities, and should not be mixed with thermal effect circumstances. The latter forms the basic for $E_{L,}$ i and $H_{L,j}$ above 1 MHz and 150 kHz respectively, found in Table 2.

For thermal effect circumstances, relevant from 100 kHz, the following two requirements should be applied to the field levels:

$$\sum_{i=100kHz}^{1MHz} \left(\frac{E_i}{c}\right)^2 + \sum_{i>1MHz}^{300GHz} \left(\frac{E_i}{E_{L,i}}\right)^2 \leq 1$$

$$\sum_{j=100kHz}^{150kHz} \left(\frac{H_j}{d}\right)^2 + \sum_{j>150kHz}^{300GHz} \left(\frac{H_j}{H_{L,j}}\right)^2 \leq 1$$

and where

E_i is the electric field strengthen at frequency i;

$E_{L,i}$ is the electric field reference level from Table 2;

H_j is the magnetic field strength at frequency j;

$H_{L,j}$ is the magnetic field reference level derived from Table 2;

c is $87/f^{1/2}$ V/m and d 0,73/f A/m.

Again, compared to the ICNIRP guidelines some cut-off points have been adjusted for public exposure only.

For limb current and contact current, respectively, the following requirements should be applied:

$$\sum_{k=10MHz}^{110MHz} \left(\frac{I_k}{I_{L,k}} \right)^2 \leq 1 \qquad \sum_{n>1Hz}^{110MHz} \left(\frac{I_n}{I_{c,n}} \right)^2 \leq 1$$

where

I_k is the limb current component at frequency k;

$I_{L,k}$ is the reference level for limb current, 45 mA;

I_n is the contact current component at frequency n;

$I_{c,n}$ is the reference level for contact current at frequency (see Table 3).

The above summation formulae assume worst-case phase conditions among the fields from the multiple sources. As a result, typical exposure situations may in practice result in less restrictive exposure levels than indicated by the above formulae for the reference levels.

(1) International Commission on Non-Ionising Radiation Protection. Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz). Health Physics 74(4): 494-522(1998). Response to questions and comments on ICNIRP. Health Physics 75(4): 438-439 (1998).

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
14.07.2000

Proposal for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community

1. A Parliamentary Resolution

In our Newsletter of 02.05.2000 we commented the Resolution of the European Parliament on the Commission communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy - Results of the Public Consultation on the Green Paper" (COM(1999) 538 - C5-0113/00 - 2000/2073(COS)).

2. A Regulatory Framework

On 12.07.2000 the European Commission published document COM(2000)407, bearing the proposal for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community.

We reproduce the 3 first articles of this drafted Decision.

Article 1 - Purpose

The purpose of this decision shall be to

(1) create a policy framework to address the strategic planning and harmonisation of the use of radio spectrum in the Community taking into consideration in particular economic, health, public policy, cultural, scientific, social and technical aspects of Community policies as well as the various interests of radio spectrum users communities with the aim of optimising the use of spectrum and of avoiding harmful interference;

2) establish a procedural framework to ensure the effective implementation of radio spectrum policy in the Community, and in particular establish a general methodology for harmonisation of the use of radio spectrum;

(3) ensure the co-ordinated and timely provision of information on radio spectrum use and availability in the Community;

(4) safeguard Community interests in international negotiations where radio spectrum use affects Community policies.

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Article 2
Definitions

For the purposes of this Decision, the following definitions shall apply:

(1) Radio spectrum shall include at least radio waves in frequencies between 9 KHz and 3000 GHz; radio waves are electromagnetic waves propagated in space without artificial guide;

(2) Allocation of a radio frequency band shall mean the entry of a radio frequency band in a table of radio frequency allocations for the purpose of its use by one or more types of services under specified conditions;

(3) Assignment of a radio frequency shall mean the authorisation given by an authority to use a radio frequency under specified conditions.

Article 3
Radio Spectrum Policy Framework

In view of the strategic planning and harmonisation of the use of radio spectrum in the Community, the Commission shall be assisted by a consultative group entitled the Senior Official Spectrum Policy Group (hereinafter referred to as 'the Group').

The Group shall be composed of senior representatives of Member States and of the representative of the Commission, and shall meet at least twice a year under the chairmanship of the Council Presidency. The Commission shall be in charge of the secretariat of the Group.

The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities and citizen representatives affected by or requiring the use of radio spectrum in the Community and in Europe.

3. Procedure

The European Parliament will have to examine this proposal and comment it.

We will have to monitor further developments very carefully.

Your comments are welcome.

4. The Document

The 18 pages document is available in Acrobat format. It is appended to this Newsletter.

73

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex 1

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 12 July 2000
COM(2000) 407 final

2000/… (COD)

Proposal for a

DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on a regulatory framework for radio spectrum policy in the European Community

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. Introduction

Purpose

This proposal for a Decision is intended to ensure the harmonised availability and efficient use of radio spectrum, where required to implement Community policies in areas such as communications, transport, broadcasting and Research and Development (R&D).

Better account should be taken within the institutional arrangements for radio spectrum management, both of the Community interests and of the needs of EU business and users. This is needed, taking into account that the extent to which radio spectrum is available, licensed and used has major policy implications for the introduction and provision in the Community of pan-European communications services, GALILEO (radionavigation by satellites), air traffic control, digital TV and radio and Earth observation services.

Basis

The proposal draws upon on the experience gained with Community Decisions in the areas of Satellite Personal Communications Services (S-PCS) and Universal Mobile Telecommunications System (UMTS). Under these Decisions, political agreement was established as regards the policy objectives to be achieved in these areas and legal provisions allow for the harmonisation of radio spectrum for these communications systems by the European Conference of Postal and Telecommunications administrations (CEPT) and ensure the implementation by the Member States of harmonisation measures adopted.

The public consultation on the Green Paper on radio spectrum policy in the Community showed support for addressing certain radio spectrum policy issues at Community level, to establish a framework in order to ensure the harmonised use of radio spectrum to implement Community policies, provided due account is given to the current institutional arrangements for radio spectrum management, and to safeguard Community interests at international level.

Currently, the harmonisation of the use of radio spectrum is achieved, at global level, in the International Telecommunication Union (ITU – 189 member countries) and its World Radiocommunications Conferences (WRC) and, at European level, in the CEPT (43 member countries). Taking the globalisation of radio markets into account, harmonisation at the highest level possible should allow for economies of scale (i.e. lower equipment costs) and pan-European and global availability of services (i.e. international roaming) since harmonisation efforts will reach beyond the Community borders.

The present proposal seeks to complement, rather than to replace, the spectrum management activities of ITU/WRC and CEPT and of the Member States. Spectrum management activities are of a highly technical nature and are best carried out as close to the market as possible (subsidiarity and proportionality). It is necessary, however, to complement the spectrum management activities with policy discussions on the need to achieve common objectives with regard to the harmonisation of the

use of radio spectrum in relevant areas. Where harmonisation is required, legal certainty and appropriate procedures are also necessary for the granting of mandates to the CEPT in order to develop spectrum harmonisation measures for Europe and corresponding proposals for ITU/WRC. Legal certainty is also required to ensure implementation by Member States of agreed harmonisation measures.

Coverage

Economic, technological and regulatory developments in the area of radiocommunications have led to a sharp increase in demand for spectrum, particularly by the communications sector where spectrum is needed to establish the Information Society. Several Community measures have been adopted in order to ensure spectrum availability for the communications sector.

To date, the radio spectrum requirements of other Community policies (such as: terrestrial and satellite TV and radio broadcasting; road-, rail-, air- and maritime transport; positioning, navigation and precision timing; Earth observation; and radio astronomy) have not been addressed in Community legislation. The present proposal seeks to establish the political and legal basis necessary to ensure that radio spectrum is and will be available to implement Community policies in all these areas.

2. Aims and objectives

The aim of the present proposal is to establish a policy and legal framework in the Community through which the harmonisation of the use of the radio spectrum in the policy areas of communications, broadcasting, transport and R&D relevant to Community policy objectives can be achieved while taking full advantage of the experience and expertise in the CEPT and ITU/WRC.

The main objectives of the proposal are to:

– set into place a policy platform which is responsive to technological, market and regulatory developments in the area of radiocommunications and which appropriately allows for consultation of all relevant radio spectrum user communities. This policy platform, to be called Senior Official Spectrum Policy Group, comprising representatives of Member States, should advise the Commission on the need to harmonise the use of the radio spectrum in relevant Community policy areas. In addition to spectrum allocation matters, the policy platform will be invited to exchange views on radio spectrum assignment matters, i.e. how spectrum is best distributed within and across different user communities and countries;

– establish a legal framework for harmonisation of spectrum where necessary; this will allow the Commission to grant mandates to the CEPT with the assistance of a Spectrum Committee on the basis of the advise from the policy platform and, where required, to legally ensure the implementation of the solutions worked out by CEPT in response to the Commission mandates ;

– ensure co-ordinated and timely provision of information on radio spectrum use and availability in the EC;

– ensure that appropriate Community and European positions are developed in view of international negotiations relating to spectrum (e.g. ITU/WRC) where issues at stake are covered by Community policies.

3. Proposed remedies

Addressing policy issues in the Community context rather than in third bodies

The proper implementation of Community policies which require radio spectrum may be put at risk if spectrum availability has not been fully considered. This cannot be decided at a technical level or in entities which are external to the Community such as CEPT or ITU/WRC. Spectrum requirements and availability issues should be settled where Community policy agreements are reached so that harmonised spectrum is available for Community policies.

➢ *The present proposal intends to ensure that radio spectrum requirements for Community policies are duly taken into account.*

Balancing spectrum requirements of various sectors on the basis of comprehensive information

With the number of claims for the use of radio spectrum increasing, the potential for conflicts arises where spectrum is scarce. Currently, no policy platform exists where the requirements of the various policies can be appropriately discussed and balanced on the basis of comprehensive economic, technological and social data. Certain commercial spectrum user communities seek to ensure spectrum availability within the mainly technical bodies of CEPT and ITU/WRC, at times at the expense of non-commercial user communities, which are represented to a lesser extent in these bodies. This situation requires public policy Decisions in order to allow a proper balance of requirements where commercial and non-commercial interests compete for access to and use of the same portion of spectrum.

➢ *The proposal seeks to ensure that spectrum requirements of the various Community policies are appropriately balanced so that justified choices can be made with regard to the distribution of the scarce resource.*

A framework Decision rather than sector-specific measures

Where required, the use of spectrum for Community policies can be and has been harmonised on the basis of particular decisions specific to each individual sector. This has a number of draw-backs, however, the most important one being the heavy and lengthy institutional procedure involved which risks to delay the introduction of new technologies and services. This proposal for a Decision aims at reaching an agreement on general objectives to be achieved, i.e. harmonisation of the use of radio spectrum, and on the applicable procedures which would be applicable to all Community policy areas involved.

➢ *The present proposal would ensure that the use of radio spectrum is harmonised according to agreed procedures.*

Ensuring availability of information of use of spectrum

Availability of information on spectrum use will be a critical factor in the work of the Senior Official Spectrum Policy Group to determine where harmonisation of the use of the radio spectrum is required.

- *Essential information should therefore be provided by Member States on the use of radio spectrum pursuant to a common Community format.*

Compulsory implementation rather than voluntary commitments

Taking into account the international trade obligations of the European Union and its Member States, and in order to have effect, measures aimed at the harmonised use of radio spectrum should be appropriately implemented. Currently, this aim is only partly met through CEPT measures, which its 43 member countries, including the Member States, are invited to implement on a voluntary basis. This situation does not provide potential investors with sufficient certainty. Where Member States agree on the need to harmonise the use of radio spectrum for a particular purpose, they should also take the necessary steps to implement such agreement in accordance with the provisions of the Decision.

- *Where policy agreement is reached to* harmonise *the use of radio spectrum necessary to implement relevant Community policies, legal provisions should ensure the appropriate implementation of measures by the Member States.*

Community positions rather than national positions for international negotiations

Decisions on radio spectrum availability impact on trade and the European Union and its Member States have taken a number of commitments in the WTO as regards spectrum policy. On spectrum management issues which are within the exclusive competence of the Community, the Community alone is able to enter into external commitments in the framework of international fora in charge of spectrum management such as the International Telecommunications Union, in which framework the Commission is authorised to negotiate.

Despite its role in trade matters, the Community is not directly involved in international spectrum management negotiations. As a consequence, the positions of Member States with regard to spectrum availability are not systematically co-ordinated for international negotiations. The Community should make sure to adopt common positions in advance of such negotiations with regard to the objectives to be achieved. If it is not possible for the Community under the rules of such international fora to put forward the Community position, the Presidency of the Council should put forward the same.

- *The proposal seeks to ensure that, where required, common Community positions are agreed upon for international negotiations where radio spectrum is discussed in order to safeguard Community interests in the international arena.*

4. Description of proposed Articles

Article 1 – Purpose

Article 1 describes the purposes of the decision ; this decision applies to all uses of spectrum – and not only communications - and aims at creating a policy and

regulatory framework so as to ensure the harmonised availability and efficient use of radio spectrum where required to implement Community policies, and to strike a balance between the various types of spectrum uses affecting Community policies. At the same time, it is to ensure the co-ordinated and timely provision of information on radio spectrum use and availability in the Community, and the safeguard of Community interest at international level where radio spectrum use affects Community policies.

Article 2 – Definitions

Article 2 provides for the definition of radio spectrum, as well as allocation and assignment of spectrum.

Article 3 – Radio spectrum policy framework

Article 3 creates the Senior Official Spectrum Policy Group which comprises representatives of Member States and which may consult spectrum users communities.

Article 4 – Function of the Group

Article 4 defines the function of the Group which is to contribute to the elaboration of a general cross-sectoral spectrum policy in view of the fulfilment of Community policy objectives.

Article 5 – Regulatory framework and the committee

Article 5 creates, as part of the establishment of a regulatory framework for the harmonisation of spectrum, a Radio Spectrum Committee to assist the Commission.

Article 6 – Harmonisation measures

Article 6 describes the regulatory framework which will ensure the effective implementation of harmonisation measures in the Community taking account of the general policy orientations of the Group. This includes the possibility for the Commission to grant harmonisation mandates to the CEPT and to make the results of such mandates obligatory for the Member States or to take alternative measures where CEPT does not deliver.

Article 7 – Advisory procedure

Article 7 defines the advisory procedure of the Radio spectrum Committee.

Article 8 – Regulatory procedure

Article 8 defines the regulatory procedure of the Radio spectrum Committee.

Article 9 – Availability of information on spectrum allocation and assignment

Article 9 requires Member States to make available information on the availability and use of spectrum on their territory. The annex to the Decision further describes such information. Harmonisation of the presentation of such information will also be required.

Article 10 – Relations with third countries and international organisations

Article 10 spells out the responsibilities of the Commission and the Member States with regard to relations with third countries and international organisations where spectrum policies and issues are being discussed as the main issue or as a part of wider negotiations. Where necessary, Member States are required to co-ordinate their positions in international negotiations to reach the objectives pursued under the Decision.

Article 11 – Notification

Article 11 requires Member States to provide the Commission with any information required for the verification of the implementation of their obligations under the Decision.

Article 12 – Confidentiality

Article 12 imposes confidentiality obligations in certain cases.

Article 13 – Report

Article 13 requires the Commission to annually report to the Council and the European Parliament on the implementation of the Decision.

Article 14 – Implementation

Article 14 requires Member States to take all measures necessary to implement their obligations under the Decision.

Article 15 – Entry into force

Article 15 regulates the entry into force of the Decision.

Article 16 - Addressees

Article 16 determines that the addressees of the Decision are the Member States.

2000/… (COD)

Proposal for a

DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on a regulatory framework for radio spectrum policy in the European Community.

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof ,

Having regard to the proposal from the Commission[1],

Having regard to the opinion of the Economic and Social Committee[2],

Having regard to the opinion of the Committee of the Regions[3],

Acting in accordance with the procedure laid down in Article 251 of the Treaty[4],

Whereas:

(1) The Commission presented on 10 November 1999 its Communication proposing the next steps in radio spectrum policy[5] based on the Results of the Public Consultation on the Green Paper on Radio Spectrum Policy[6]. This Communication received the support of the European Parliament[7]. It underlined the need for action at Community level to achieve a harmonised and balanced approach on the use of radio spectrum in the Community in order to fulfil Community internal market principles and to protect Community interests at international level.

(2) Where necessary, policy principles on the use of radio spectrum need to be defined at Community level in view of meeting Community policy objectives, in particular in the areas of communications, broadcasting, transport, research which all require, to various extents, the use of radio spectrum, while maintaining a high standard of citizen's health. On the basis of these principles, the use of radio spectrum has to be

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1 OJ C […], […], p. […].
2 OJ C […], […], p. […].
3 OJ C […], […], p. […].
4 OJ C […], […], p. […].
5 Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper; Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, 10 November 1999 (COM(1999) 538).
6 Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport and R&D (COM(1998) 596).
7 European Parliament Resolution on the Commission Communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper" (COM(1999) 538 – C5-0113/00 – 2000/2073 (COS)), A5-0122/2000 of 18 May 2000.

co-ordinated and harmonised at Community level, where necessary, to fulfil these Community objectives. Community co-ordination and harmonisation may also help achieving harmonisation and co-ordination of the use of the spectrum at global level in certain cases. At the same time, appropriate technical support can be provided at national level.

(3) Spectrum policy cannot be based only on technical parameters but also need to take into account economic, political, cultural, health and social considerations. Moreover, the ever-rising scarcity of available radio spectrum may increase the sources of conflicts between the various groups of radio spectrum users in sectors such as communications, broadcasting, transport, law enforcement, military and the scientific community. Therefore, spectrum policy must take into account all sectors and must balance the respective needs thereof against each other. This decision may not affect the right of Member States to take necessary restrictions for public order and public security purposes.

(4) In order to define general policy objectives regarding the use of spectrum, an appropriate consultative body should be created which will gather, under the Presidency, senior Member States representatives responsible for the various sectors using or affected by the use of radio spectrum, such as communications, broadcasting, audio-visual, transport, research and development as well as of security policy, military defence and police sectors, which may be indirectly affected. This group will provide guidance to the Commission, both on its own initiative and at the request of the Commission, on the need for harmonisation of the use of radio spectrum in the general context of Community policy and on regulatory and other issues related to the use of radio spectrum which impact on Community policies, including, for example, methods for granting rights to use spectrum, information availability, availability of spectrum, refarming, relocation, valuation and efficient use of radio spectrum as well as protection of human health. For that purpose, each national delegation should have a co-ordinated view of all policy aspects affecting spectrum use in its Member State in relation with the issues to be discussed in the Group.

(5) The group will take into account the views of the industry and of all users involved, both commercial and non-commercial, as well as of other interested parties on technological, market and regulatory developments which may affect the use of radio spectrum. Spectrum users should be free to provide all input they believe is necessary. The group may decide to hear representatives of the spectrum users communities at group meetings where necessary to illustrate the situation in a particular sector.

(6) The Commission should report on a regular basis to the Council and the European Parliament on the results achieved under this decision, on policy objectives for radio spectrum in the Community as well as on planned future actions. This will allow for the provision of the appropriate political support to the policy objectives.

(7) Radio spectrum technical management includes the harmonisation and allocation of radio spectrum. Such harmonisation must reflect the requirements of general policy principles identified at Community level. Co-ordinated introduction in the Community of systems using radio spectrum is highly dependent on the various national approaches to assignment and licensing including with regard to spectrum pricing and license fees. These issues should therefore be discussed and where appropriate be harmonised at Community level.

(8) The Community approach should also benefit from co-operation with radio spectrum experts from national authorities responsible for radio spectrum management. Building on the experience of mandating procedures gained in specific sectors, such as S-PCS[8] and UMTS[9], a permanent, stable and uniform framework needs to be created at Community level to ensure harmonised availability of radio spectrum use and to provide adequate legal certainty. Harmonisation measures must be adopted as a result of mandates to national experts acting in appropriate spectrum management bodies including CEPT. Where necessary, the Commission should be able to make the results of such mandates compulsory for Member States, and where the results of such mandates are not acceptable, to take appropriate alternative action. This will in particular provide for the harmonisation of frequency spectrum necessary for the implementation of the European Parliament and Council Directive on the authorisation of electronic communications networks and services[10];

(9) A committee of national experts should also assist the Commission on the technical aspects of spectrum harmonisation, acting as an advisory or regulatory committee where applicable. In accordance with Article 2 of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission[11], measures for the implementation of this decision should be adopted by use of the advisory procedure provided for in Article 13 of that Decision. However, since part of the measures necessary for the implementation of this decision are measures of general scope within the meaning of Article 2 of that Decision , they should be adopted by use of the regulatory procedure provided for in Article 5 of that Decision.

(10) Appropriate information on present and future planning, allocation and assignment of radio spectrum, as well as conditions for access to and use of the whole radio spectrum are essential elements for investments and policy making. So are technological developments which will give rise to new spectrum allocation and management techniques and frequency assignment methods. Development of long term strategic aspects require proper understanding of implications of how technology evolves. Such information therefore has to be made accessible in the Community, without prejudice to confidential business and personal information protection under Directive 97/66/EC on data protection[12]. The implementation of a cross-sectoral spectrum policy makes the availability of information on the whole radio spectrum necessary. In view of the general purpose of harmonising spectrum use in the Community and in Europe, such information needs to be aggregated at a European level in a user-friendly manner.

(11) It is therefore necessary to complement existing Community and international requirements for publication of information on use of radio spectrum. At international level, the Reference Paper on Regulatory Principles negotiated in the context of the

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8 European Parliament and Council Decision 710/97/EC of 24 March 1997 on a co-ordinated authorisation approach in the field of satellite personal-communication services in the Community (OJ L 105, 23.4.97, p.4).

9 European Parliament and Council Decision 128/1999/EC of 14 December 1998 on the co-ordinated introduction of a third generation mobile and wireless communications system (UMTS) in the Community (OJ L 17, 22.1.1999, p.1.).

10 OJ

11 OJ L 184, 17.7.1999, p.23.

12 European Parliament and Council Directive 97/66/EC of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector (OJ L 24, 30.01.1998, p.1).

World Trade Organisation by the Group on Basic Telecommunications also requires that the existing state of allocated frequency bands be made publicly available. Commission Directive 96/2/EC (the Mobile Directive)[13] requires Member States to publish every year or make available on request the allocation scheme of frequencies, including plans for future extension of such frequencies, but only covers mobile and personal communications services. Moreover, Directive 1999/5/EC (R&TTE Directive)[14] as well Directive 98/34/EC[15] require Member States to notify to the Commission the interfaces which they have regulated so as to assess their compatibility with Community law.

(12) The Mobile Directive was at the origin of the adoption of a first set of measures by CEPT such as ERC Decision (ERC/DEC/(97)01) on the publication of national tables of radio spectrum allocations. It is necessary to ensure that CEPT solutions reflect the needs of Community policy and are given the appropriate legal basis so as to be implemented in the Community. For that purpose, specific measures have to be adopted in the Community both on procedure and substance.

(13) Community undertakings should obtain fair and non-discriminatory treatment on access to spectrum in third countries. As access to radio spectrum is a key factor for business development and public interest activities, it is also necessary to ensure that Community requirements for radio spectrum are reflected in international planning.

(14) Implementation of Community policies may require co-ordination of radio spectrum use, in particular the provision of communications services including Community-wide roaming facilities. Moreover, certain types of spectrum use entail a geographical coverage which goes beyond the borders of a Member State and allow for transborder services without requiring the movement of persons, such as satellite communications services. It is therefore necessary that the Community be adequately represented in the activities of all relevant international organisations and conferences related to radio spectrum management matters, such as within ITU and its World Radiocommunications Conferences[16]. In international negotiations, Member States and the Community should develop a common action and closely cooperate during the whole negotiations process so as to safeguard the unity of the international representation of the Community. As a consequence, Member States should support the request by the Community in view of involvement in such negotiations, based in particular on the procedures which had been agreed in the Council conclusions of 3 February 1992 for the World Administrative Radio Conference and as confirmed by the Council conclusions of 22 September 1997 and 2 May 2000. For such international negotiations, the Commission sets out the objectives to be achieved in the context of Community policies, in view of obtaining endorsement by Council on the positions to be taken by Member States at international level. Member States accompany any act of acceptance of any agreement or regulation within international fora in charge of or

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13 Commission Directive 96/2/EC of 16 January 1996 amending Directive 90/388/EEC with regard to mobile and personal communications (OJ L 20, 26.01.1996, p.59).

14 European Parliament and Council Directive 1999/5/EC of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (OJ L 91, 7.4.1999, p.10).

15 European Parliament and Council Directive 98/34/EC of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (OJ L 204, 21.7.1998, p. 37).

16 The Commission reported on the Community issues at stake in WRC in COM(1997) 304, COM(1998) 298 and COM(2000) 86.

concerned with spectrum management by a joint declaration stating that they will apply such agreement or regulation in accordance with their obligations under the Treaty establishing the European Community.

(15) The inherent international nature of spectrum issues may require the adoption of a number of agreements with third countries which also affect frequency bands usage and sharing plans, in view in particular of trade and market access, including in the World Trade Organisation framework, free circulation and use of equipment, communications systems of regional or global coverage such as satellites, safety and distress operations, transportation systems, broadcasting technologies, and research applications such as radio-astronomy and Earth observation.

(16) It is necessary, due to the potential commercial sensitivity of information which may be obtained by national authorities in the course of their action relating to spectrum policy and management, to establish common principles applicable to these national regulatory authorities in the field of confidentiality. Moreover, members of the institutions of the Community, members of committees and the officials and other servants of the Community are required by Community law and in particular Article 214 of the Treaty not to disclose information of the kind covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components.

(17) Taking into account international trade obligations of the European Union and its Member States, Member States should implement this common framework for spectrum policy, in particular through their national authorities and provide all information required to the Commission to assess the proper implementation throughout the Community.

(18) This decision should enter into force without delay while the existing UMTS and S-PCS Decisions should remain in force until they reach their date of expiry as they provide for a legal basis for ongoing harmonisation measures and specific solutions for UMTS and S-PCS.

HAVE ADOPTED THIS DECISION:

Article 1
Purpose

The purpose of this decision shall be to

(1) create a policy framework to address the strategic planning and harmonisation of the use of radio spectrum in the Community taking into consideration in particular economic, health, public policy, cultural, scientific, social and technical aspects of Community policies as well as the various interests of radio spectrum users communities with the aim of optimising the use of spectrum and of avoiding harmful interference;

(2) establish a procedural framework to ensure the effective implementation of radio spectrum policy in the Community, and in particular establish a general methodology for harmonisation of the use of radio spectrum;

(3) ensure the co-ordinated and timely provision of information on radio spectrum use and availability in the Community;

(4) safeguard Community interests in international negotiations where radio spectrum use affects Community policies.

This Decision is without prejudice to the specific rules adopted by Member States or the Community governing the content of audio-visual programmes intended for the general public as well as to the provisions of Directive 1999/5/EC, as well as to the right of Member States to organise their radio spectrum for public order and public security purposes.

Article 2
Definitions

For the purposes of this Decision, the following definitions shall apply:

(1) Radio spectrum shall include at least radio waves in frequencies between 9 KHz and 3000 GHz; radio waves are electromagnetic waves propagated in space without artificial guide;

(2) Allocation of a radio frequency band shall mean the entry of a radio frequency band in a table of radio frequency allocations for the purpose of its use by one or more types of services under specified conditions;

(3) Assignment of a radio frequency shall mean the authorisation given by an authority to use a radio frequency under specified conditions.

Article 3
Radio Spectrum Policy Framework

In view of the strategic planning and harmonisation of the use of radio spectrum in the Community, the Commission shall be assisted by a consultative group entitled the Senior Official Spectrum Policy Group (hereinafter referred to as ‘the Group’).

The Group shall be composed of senior representatives of Member States and of the representative of the Commission, and shall meet at least twice a year under the chairmanship of the Council Presidency. The Commission shall be in charge of the secretariat of the Group.

The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities and citizen representatives affected by or requiring the use of radio spectrum in the Community and in Europe.

Article 4
Function of the Group

The Group shall contribute to the formulation, preparation and implementation of a radio spectrum policy by delivering opinions to the Commission either at the Commission's request or on its own initiative, and contribute to the preparation of the Commission's report referred to in Article 13.

The Group shall in particular:

(1) monitor the evolution of the use of and access to radio spectrum in the Community as well as at national, regional, and global levels;

(2) review current needs and anticipate future needs for radio spectrum for commercial as well as non-commercial applications in the Community, based in particular on strategic, economic, technological, political, health, social and cultural aspects of radio spectrum use, in view of the fulfilment of Community policy objectives; advise the Commission on strategic planning of radio spectrum use, and where necessary, balance the various requirements for radio spectrum of different users;

(3) advise the Commission on regulatory, international, technical, economic and political developments affecting the use of spectrum, as well as on the need for harmonisation measures at Community level for radio spectrum use to implement Community policies;

(4) assess the need for European common proposals to be developed in view of international negotiations;

(5) assist in the preparation of the Commission annual report on the developments impacting on existing and future use of radio spectrum in the Community;

(6) encourage the exchange of information among Member States on the evolution of the use of radio spectrum in the Community.

Article 5
Regulatory framework and the Committee

The Commission shall be assisted by a Committee to be known as the Radio Spectrum Committee, composed of representatives of the Member States and chaired by a representative of the Commission. This committee shall act pursuant to Decision 1999/468/EC.

Article 6
Harmonisation Measures

(1) Where appropriate, and taking into account where possible the advice of the Group, the Commission shall propose measures to harmonise the use of radio spectrum, assignment methods, conditions for such use, as well as the availability of information related to the use of radio spectrum.

(2) For these purposes, the Commission shall give mandates to the CEPT, setting out the tasks to be performed and the timetable therefor. The Commission shall be assisted by the Radio Spectrum Committee acting in accordance with Article 7.

(3) On the basis of the work completed pursuant to paragraph 2, the Commission shall decide whether the results of the mandate are acceptable and, if so, may decide to make such results mandatory for the Member States, which shall implement them in a deadline to be determined. These Decisions shall be published in the Official Journal of the European Communities. For the purpose of this paragraph (3), the Commission shall be assisted by the Radio Spectrum Committee acting in accordance with Article 8.

(4) Notwithstanding paragraph 3, if the Commission or any Member State considers that the work done on the basis of a mandate granted pursuant to paragraph (2) is not progressing satisfactorily having regard to the set timetable or if the results of the mandate are not acceptable, the Commission may adopt measures to achieve the objectives of the mandate, in accordance with Article 8.

Article 7
Advisory Procedure

Where reference is made to this article, the advisory procedure laid down in Article 3 of Decision 1999/468/EC shall apply, in compliance with Article 7(3) and Article 8 thereof.

Article 8
Regulatory Procedure

Where reference is made to this article, the regulatory procedure laid down in Article 5 of Decision 1999/468/EC shall apply, in compliance with Article 7(3) and Article 8 thereof. The period provided for in Article 5(6) of Decision 1999/468/EC shall be three months.

Article 9
Availability of Information on Spectrum Allocation and Assignment

Member States shall publish without delay the information as defined in the Annex to this Decision and shall keep this information up-to-date.

Moreover, Member States shall take measures to develop an appropriate data base in order to make such information available to the public in a harmonised way.

Article 10
Relations with third countries and international organisations

(1) The Commission shall monitor developments regarding radio spectrum in third countries and in international organisations, which may have implications for the implementation of this Decision.

(2) The Member States shall inform the Commission of any difficulties created, de jure or de facto, by third countries or international organisations for the implementation of this decision.

(3) The Commission shall report regularly on the results of the application of paragraphs (1) and (2) to Council and European Parliament and may propose measures with the aim of securing the implementation of the principles and objectives of this Decision, where appropriate. Whenever necessary, common positions shall be agreed to ensure Community coordination among Member States.

(4) Measures taken pursuant to this Article shall be without prejudice to the Community's and Member States' rights and obligations under relevant international agreements.

Article 11
Notification

Member States shall give the Commission such information as it may require for the purpose of verifying the implementation of this Decision. In particular, Member States shall immediately inform the Commission about the implementation of the results of the mandates pursuant to Article 6(3).

Article 12
Confidentiality

(1) Member States shall not disclose information covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components.

(2) Paragraph 1 shall be without prejudice to the right of national authorities to undertake disclosure where it is essential for the purposes of fulfilling their duties, in which case such disclosure shall be proportionate and shall have regard to the legitimate interests of undertakings in the protection of their business secrets.

(3) Paragraph 1 shall not preclude publication of information on conditions linked to the granting of rights to use spectrum which does not include information of a confidential nature.

Article 13
Report

The Commission shall report on an annual basis to the Council and the European Parliament on the activities developed and the measures adopted pursuant to this Decision, on the results

of the work done by the Group as well as on future actions envisaged pursuant to this Decision.

Article 14
Implementation

Member States shall take all measures necessary, by law or administrative action, for the implementation of this Decision and all resulting measures.

Article 15
Entry into Force

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Communities*.

Article 16
Addressees

This Decision is addressed to the Member States.

Done at Brussels, […]

For the European Parliament	*For the Council*
The President	*The President*

ANNEX

Pursuant to Article 9, and without prejudice to notification obligations under Directives 1999/5/EC and 98/34/EC, the following information shall be published:

1. Information regarding frequency allocation and assignment includes the following:

- existing allocations and assignments of radio spectrum as well as conditions for the use of radio spectrum, including where practicable, operating power, emission and any other technical constraints;

- plans for changes to existing allocations for the next two years at least, including relocation plans and review date of allocation;

- locations and geographical coverage linked to allocation plans;

- service actually operated, if different from allocated, and effective use of spectrum;

- reserved bands for new services;

2. Without prejudice to the provisions of specific legislation relating to communications networks and services,, publication shall include procedures for granting rights to use spectrum , and planned changes to spectrum use conditions. These shall include all types of obligations, charges and financial costs related to the use of radio spectrum, including administrative charges, usage fees and procedures for assignment of spectrum (including auctions).

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

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EUROCOM Newsletter
20.07.2000

Regulatory Framework for Radio Spectrum Policy in the European Community

An explanatory paper

In our Newsletter of 14.07.2000 we announced that the European Commission had published document COM(2000)407, bearing the proposal for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community.

The text of this document was appended to the Newsletter.

We have carefully examined the text of the proposal and outlined its essential features in the appended paper.

We welcome your comments for a further analysis of the document as well as your suggestions for ways to deal with the developping situation.

73.

Gaston Bertels
EUROCOM Chairman

Annex 1

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel : +32.2.771.67.74 Fax : +32.2.771.49.89 E-Mail : gaston.bertels @ chello.be

Regulatory Framework for Radio Spectrum Policy in the European Community

COM(2000)407

Content of the Proposal and Comments

1. Chronology

Dates	Events	EUROCOM Newsletters
09.12.1998	The European Commission (DGXIII) issued a Green Paper on the Radio Spectrum Policy of the Community (COM(1998)596)	06.02.1999
17.03.1999	A EUROCOM delegation participated to the consultation meeting hosted in Brussels by the European Commission.	20.03.1999
19.03.1999	The Committee on Economic and Monetary Affairs and Industrial Policy issued a draft for a Resolution. This draft was circulated by EUROCOM	23.03.1999
20.03.1999	ON4WF suggested two amendments to the Resolution, calling for securing spectrum for "*non-profit applications of public interest, such as the Amateur Radio service"*. MEP Fernandez-Martin (EA8AK) submitted these amendments to the rapporteur	07.04.1999
24.03.1999	MEP Fernandez-Martin addressed a Question to Commissioner Bangemann asking for the Amateur Radio services not to be omitted from the Green Paper. The Commissioner answered that these activities are liable to be included in the R&D chapter	12.05.1999
31.03.1999	EUROCOM submitted a paper with *Comments to the Green Paper* to the European Commission	07.04.1999
13.04.1999	The EUROCOM *Comments* can be downloaded from: http://www.ispo.cec.be/spectrumgp/sgpcomment.htm	13.04.1999
21.04.1999	The EMAC Committee adopted the drafted Motion for a Resolution, approving the above mentioned amendments	23.04.1999
04.05.1999	The European Parliament adopted the Resolution, with the amendments	05.05.1999
16.11.1999	The European Commission addressed a communication to the Parliament on the *Next steps in Radio Spectrum Policy*. The Committee on Industry, External Trade, Research and Energy drafted a Motion for a Resolution. We suggested an amendment, that was submitted by MEP Fernandez-Martin, *"urging the Member States, the Commission and the Council to take concrete measures to ensure the availablity of sufficient frequency bands for ... amateur radio licensees...".*	20.04.2000
19.04.2000	The Committee approved the amendment.	20.04.2000
18.05.2000	The European Parliament adopted the Resolution	02.06.2000
12.07.2000	The European Commission issued document *COM(2000)407*, proposing a "*Decision of the European Parliament and of the Council on a Regulatory Framework for radio Spectrum Policy in the European Community*". The document was appended to the EUROCOM Newsletter	14.07.2000

2. Purpose of the proposed Framework

Quoting the Explanatory Memorandum:

"This proposal for a Decision is intended to ensure the harmonized availability and efficient use of radio spectrum, where required to implement Community policies in areas such as communications, transport, broadcasting and research and Development (R&D)".

"It is necessary to complement the spectrum management activities with policy discussions on the need to achieve common objectives with regard to the harmonization of the use of radio spectrum in relevant areas. Where harmonization is required, legal certainty and appropriate procedures are also necessary for granting of mandates to the CEPT in order to develop spectrum harmonization measures for Europe and corresponding proposals for ITU/WRC. Legal certainty is also required to ensure implementation by Member States of agreed harmonization measures".

3. Remedies

- adressing policy issues in the Community context rather than in third bodies external to the Community, such as CEPT or ITU/WRC
- balancing spectrum requirements of various sectors on the basis of comprehensive information
- a framework rather than sector-specific measures
- ensuring availability of information of use of spectrum
- compulsory implementation rather than voluntary commitments (CEPT measures are implemented on a voluntary basis...)
- Community positions rather than national positions for international negotiations.

4. Two instruments for a Framework

It is proposed to set into place:

- a **Senior Official Spectrum Policy Group:** a policy platform which is responsive to technological, market and regulatory developments in the area of telecommunications and which appropriately allows for consultation of all relevant radio spectrum user communities; the **Group**, composed of senior representatives of Member States and of the representative of the Commission, shall contribute to the formulation, preparation and implementation of a *radio spectrum policy*
- a **Radio Spectrum Committee:** composed of representatives of the Member States and chaired by a representative of the Commission, shall assist the Commission on the *technical aspects* involved in the pursuance of the radio spectrum policy.

5. Implementation of the Community's radio spectrum policy

It is proposed that the Commission shall take measures to harmonize the use of radio spectrum, assignment methods, conditions for use, as well as the availability of information related to the use of radio spectrum.

Therefore the Commission will give mandates to the CEPT. Consequently, the representatives of the Member States within CEPT will have to contribute to the adoption of the measures proposed by the Commission. If the results of the mandate are acceptable, the Commission may decide to make such results mandatory for the Member States. If the results are not acceptable, the Commission may adopt measures to achieve the objectives of the mandate.

The Commission shall also monitor developments regarding radio spectrum in third countries and in international organizations and may propose measures with the aim of securing the implementation of the principles and objectives of the Regulatory Framework.

6. Defense of the Amateur Radio services

The European Commission will become an important rule maker in radio spectrum issues. Its role in this domain will be predominant within the European Community and very important in international fora.

The defense of the Amateur Radio spectrum and of its conditions for use has to be organised on this level as it is with ERC, CEPT and ITU.

During the preparatory period, i.e. the last two years, we have succeeded in drawing the attention of the Parliament and of the Commission on the Amateur Radio services, qualified as being of public interest. Our efforts shall now tend to assure, that the Amateur Radio services be duly represented and their interests efficiently defended when radio spectrum and related issues are at stake at the European Community level.

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 12 July 2000
COM(2000) 407 final

2000/… (COD)

Proposal for a

DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on a regulatory framework for radio spectrum policy in the European Community

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. Introduction

Purpose

This proposal for a Decision is intended to ensure the harmonised availability and efficient use of radio spectrum, where required to implement Community policies in areas such as communications, transport, broadcasting and Research and Development (R&D).

Better account should be taken within the institutional arrangements for radio spectrum management, both of the Community interests and of the needs of EU business and users. This is needed, taking into account that the extent to which radio spectrum is available, licensed and used has major policy implications for the introduction and provision in the Community of pan-European communications services, GALILEO (radionavigation by satellites), air traffic control, digital TV and radio and Earth observation services.

Basis

The proposal draws upon on the experience gained with Community Decisions in the areas of Satellite Personal Communications Services (S-PCS) and Universal Mobile Telecommunications System (UMTS). Under these Decisions, political agreement was established as regards the policy objectives to be achieved in these areas and legal provisions allow for the harmonisation of radio spectrum for these communications systems by the European Conference of Postal and Telecommunications administrations (CEPT) and ensure the implementation by the Member States of harmonisation measures adopted.

The public consultation on the Green Paper on radio spectrum policy in the Community showed support for addressing certain radio spectrum policy issues at Community level, to establish a framework in order to ensure the harmonised use of radio spectrum to implement Community policies, provided due account is given to the current institutional arrangements for radio spectrum management, and to safeguard Community interests at international level.

Currently, the harmonisation of the use of radio spectrum is achieved, at global level, in the International Telecommunication Union (ITU – 189 member countries) and its World Radiocommunications Conferences (WRC) and, at European level, in the CEPT (43 member countries). Taking the globalisation of radio markets into account, harmonisation at the highest level possible should allow for economies of scale (i.e. lower equipment costs) and pan-European and global availability of services (i.e. international roaming) since harmonisation efforts will reach beyond the Community borders.

The present proposal seeks to complement, rather than to replace, the spectrum management activities of ITU/WRC and CEPT and of the Member States. Spectrum management activities are of a highly technical nature and are best carried out as close to the market as possible (subsidiarity and proportionality). It is necessary, however, to complement the spectrum management activities with policy discussions on the need to achieve common objectives with regard to the harmonisation of the

use of radio spectrum in relevant areas. Where harmonisation is required, legal certainty and appropriate procedures are also necessary for the granting of mandates to the CEPT in order to develop spectrum harmonisation measures for Europe and corresponding proposals for ITU/WRC. Legal certainty is also required to ensure implementation by Member States of agreed harmonisation measures.

Coverage

Economic, technological and regulatory developments in the area of radiocommunications have led to a sharp increase in demand for spectrum, particularly by the communications sector where spectrum is needed to establish the Information Society. Several Community measures have been adopted in order to ensure spectrum availability for the communications sector.

To date, the radio spectrum requirements of other Community policies (such as: terrestrial and satellite TV and radio broadcasting; road-, rail-, air- and maritime transport; positioning, navigation and precision timing; Earth observation; and radio astronomy) have not been addressed in Community legislation. The present proposal seeks to establish the political and legal basis necessary to ensure that radio spectrum is and will be available to implement Community policies in all these areas.

2. Aims and objectives

The aim of the present proposal is to establish a policy and legal framework in the Community through which the harmonisation of the use of the radio spectrum in the policy areas of communications, broadcasting, transport and R&D relevant to Community policy objectives can be achieved while taking full advantage of the experience and expertise in the CEPT and ITU/WRC.

The main objectives of the proposal are to:

– set into place a policy platform which is responsive to technological, market and regulatory developments in the area of radiocommunications and which appropriately allows for consultation of all relevant radio spectrum user communities. This policy platform, to be called Senior Official Spectrum Policy Group, comprising representatives of Member States, should advise the Commission on the need to harmonise the use of the radio spectrum in relevant Community policy areas. In addition to spectrum allocation matters, the policy platform will be invited to exchange views on radio spectrum assignment matters, i.e. how spectrum is best distributed within and across different user communities and countries;

– establish a legal framework for harmonisation of spectrum where necessary; this will allow the Commission to grant mandates to the CEPT with the assistance of a Spectrum Committee on the basis of the advise from the policy platform and, where required, to legally ensure the implementation of the solutions worked out by CEPT in response to the Commission mandates ;

– ensure co-ordinated and timely provision of information on radio spectrum use and availability in the EC;

– ensure that appropriate Community and European positions are developed in view of international negotiations relating to spectrum (e.g. ITU/WRC) where issues at stake are covered by Community policies.

3. Proposed remedies

Addressing policy issues in the Community context rather than in third bodies

The proper implementation of Community policies which require radio spectrum may be put at risk if spectrum availability has not been fully considered. This cannot be decided at a technical level or in entities which are external to the Community such as CEPT or ITU/WRC. Spectrum requirements and availability issues should be settled where Community policy agreements are reached so that harmonised spectrum is available for Community policies.

➢ *The present proposal intends to ensure that radio spectrum requirements for Community policies are duly taken into account.*

Balancing spectrum requirements of various sectors on the basis of comprehensive information

With the number of claims for the use of radio spectrum increasing, the potential for conflicts arises where spectrum is scarce. Currently, no policy platform exists where the requirements of the various policies can be appropriately discussed and balanced on the basis of comprehensive economic, technological and social data. Certain commercial spectrum user communities seek to ensure spectrum availability within the mainly technical bodies of CEPT and ITU/WRC, at times at the expense of non-commercial user communities, which are represented to a lesser extent in these bodies. This situation requires public policy Decisions in order to allow a proper balance of requirements where commercial and non-commercial interests compete for access to and use of the same portion of spectrum.

➢ *The proposal seeks to ensure that spectrum requirements of the various Community policies are appropriately balanced so that justified choices can be made with regard to the distribution of the scarce resource.*

A framework Decision rather than sector-specific measures

Where required, the use of spectrum for Community policies can be and has been harmonised on the basis of particular decisions specific to each individual sector. This has a number of draw-backs, however, the most important one being the heavy and lengthy institutional procedure involved which risks to delay the introduction of new technologies and services. This proposal for a Decision aims at reaching an agreement on general objectives to be achieved, i.e. harmonisation of the use of radio spectrum, and on the applicable procedures which would be applicable to all Community policy areas involved.

➢ *The present proposal would ensure that the use of radio spectrum is harmonised according to agreed procedures.*

Ensuring availability of information of use of spectrum

Availability of information on spectrum use will be a critical factor in the work of the Senior Official Spectrum Policy Group to determine where harmonisation of the use of the radio spectrum is required.

- *Essential information should therefore be provided by Member States on the use of radio spectrum pursuant to a common Community format.*

Compulsory implementation rather than voluntary commitments

Taking into account the international trade obligations of the European Union and its Member States, and in order to have effect, measures aimed at the harmonised use of radio spectrum should be appropriately implemented. Currently, this aim is only partly met through CEPT measures, which its 43 member countries, including the Member States, are invited to implement on a voluntary basis. This situation does not provide potential investors with sufficient certainty. Where Member States agree on the need to harmonise the use of radio spectrum for a particular purpose, they should also take the necessary steps to implement such agreement in accordance with the provisions of the Decision.

- *Where policy agreement is reached to* harmonise *the use of radio spectrum necessary to implement relevant Community policies, legal provisions should ensure the appropriate implementation of measures by the Member States.*

Community positions rather than national positions for international negotiations

Decisions on radio spectrum availability impact on trade and the European Union and its Member States have taken a number of commitments in the WTO as regards spectrum policy. On spectrum management issues which are within the exclusive competence of the Community, the Community alone is able to enter into external commitments in the framework of international fora in charge of spectrum management such as the International Telecommunications Union, in which framework the Commission is authorised to negotiate.

Despite its role in trade matters, the Community is not directly involved in international spectrum management negotiations. As a consequence, the positions of Member States with regard to spectrum availability are not systematically co-ordinated for international negotiations. The Community should make sure to adopt common positions in advance of such negotiations with regard to the objectives to be achieved. If it is not possible for the Community under the rules of such international fora to put forward the Community position, the Presidency of the Council should put forward the same.

- *The proposal seeks to ensure that, where required, common Community positions are agreed upon for international negotiations where radio spectrum is discussed in order to safeguard Community interests in the international arena.*

4. Description of proposed Articles

Article 1 – Purpose

Article 1 describes the purposes of the decision ; this decision applies to all uses of spectrum – and not only communications - and aims at creating a policy and

regulatory framework so as to ensure the harmonised availability and efficient use of radio spectrum where required to implement Community policies, and to strike a balance between the various types of spectrum uses affecting Community policies. At the same time, it is to ensure the co-ordinated and timely provision of information on radio spectrum use and availability in the Community, and the safeguard of Community interest at international level where radio spectrum use affects Community policies.

Article 2 – Definitions

Article 2 provides for the definition of radio spectrum, as well as allocation and assignment of spectrum.

Article 3 – Radio spectrum policy framework

Article 3 creates the Senior Official Spectrum Policy Group which comprises representatives of Member States and which may consult spectrum users communities.

Article 4 – Function of the Group

Article 4 defines the function of the Group which is to contribute to the elaboration of a general cross-sectoral spectrum policy in view of the fulfilment of Community policy objectives.

Article 5 – Regulatory framework and the committee

Article 5 creates, as part of the establishment of a regulatory framework for the harmonisation of spectrum, a Radio Spectrum Committee to assist the Commission.

Article 6 – Harmonisation measures

Article 6 describes the regulatory framework which will ensure the effective implementation of harmonisation measures in the Community taking account of the general policy orientations of the Group. This includes the possibility for the Commission to grant harmonisation mandates to the CEPT and to make the results of such mandates obligatory for the Member States or to take alternative measures where CEPT does not deliver.

Article 7 – Advisory procedure

Article 7 defines the advisory procedure of the Radio spectrum Committee.

Article 8 – Regulatory procedure

Article 8 defines the regulatory procedure of the Radio spectrum Committee.

Article 9 – Availability of information on spectrum allocation and assignment

Article 9 requires Member States to make available information on the availability and use of spectrum on their territory. The annex to the Decision further describes such information. Harmonisation of the presentation of such information will also be required.

Article 10 – Relations with third countries and international organisations

Article 10 spells out the responsibilities of the Commission and the Member States with regard to relations with third countries and international organisations where spectrum policies and issues are being discussed as the main issue or as a part of wider negotiations. Where necessary, Member States are required to co-ordinate their positions in international negotiations to reach the objectives pursued under the Decision.

Article 11 – Notification

Article 11 requires Member States to provide the Commission with any information required for the verification of the implementation of their obligations under the Decision.

Article 12 – Confidentiality

Article 12 imposes confidentiality obligations in certain cases.

Article 13 – Report

Article 13 requires the Commission to annually report to the Council and the European Parliament on the implementation of the Decision.

Article 14 – Implementation

Article 14 requires Member States to take all measures necessary to implement their obligations under the Decision.

Article 15 – Entry into force

Article 15 regulates the entry into force of the Decision.

Article 16 - Addressees

Article 16 determines that the addressees of the Decision are the Member States.

2000/… (COD)

Proposal for a

DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on a regulatory framework for radio spectrum policy in the European Community.

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof ,

Having regard to the proposal from the Commission[1],

Having regard to the opinion of the Economic and Social Committee[2],

Having regard to the opinion of the Committee of the Regions[3],

Acting in accordance with the procedure laid down in Article 251 of the Treaty[4],

Whereas:

(1) The Commission presented on 10 November 1999 its Communication proposing the next steps in radio spectrum policy[5] based on the Results of the Public Consultation on the Green Paper on Radio Spectrum Policy[6]. This Communication received the support of the European Parliament[7]. It underlined the need for action at Community level to achieve a harmonised and balanced approach on the use of radio spectrum in the Community in order to fulfil Community internal market principles and to protect Community interests at international level.

(2) Where necessary, policy principles on the use of radio spectrum need to be defined at Community level in view of meeting Community policy objectives, in particular in the areas of communications, broadcasting, transport, research which all require, to various extents, the use of radio spectrum, while maintaining a high standard of citizen's health. On the basis of these principles, the use of radio spectrum has to be

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1 OJ C […], […], p. […].
2 OJ C […], […], p. […].
3 OJ C […], […], p. […].
4 OJ C […], […], p. […].
5 Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper; Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, 10 November 1999 (COM(1999) 538).
6 Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport and R&D (COM(1998) 596).
7 European Parliament Resolution on the Commission Communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on "Next Steps in Radio Spectrum Policy – Results of the Public Consultation on the Green Paper" (COM(1999) 538 – C5-0113/00 – 2000/2073 (COS)), A5-0122/2000 of 18 May 2000.

co-ordinated and harmonised at Community level, where necessary, to fulfil these Community objectives. Community co-ordination and harmonisation may also help achieving harmonisation and co-ordination of the use of the spectrum at global level in certain cases. At the same time, appropriate technical support can be provided at national level.

(3) Spectrum policy cannot be based only on technical parameters but also need to take into account economic, political, cultural, health and social considerations. Moreover, the ever-rising scarcity of available radio spectrum may increase the sources of conflicts between the various groups of radio spectrum users in sectors such as communications, broadcasting, transport, law enforcement, military and the scientific community. Therefore, spectrum policy must take into account all sectors and must balance the respective needs thereof against each other. This decision may not affect the right of Member States to take necessary restrictions for public order and public security purposes.

(4) In order to define general policy objectives regarding the use of spectrum, an appropriate consultative body should be created which will gather, under the Presidency, senior Member States representatives responsible for the various sectors using or affected by the use of radio spectrum, such as communications, broadcasting, audio-visual, transport, research and development as well as of security policy, military defence and police sectors, which may be indirectly affected. This group will provide guidance to the Commission, both on its own initiative and at the request of the Commission, on the need for harmonisation of the use of radio spectrum in the general context of Community policy and on regulatory and other issues related to the use of radio spectrum which impact on Community policies, including, for example, methods for granting rights to use spectrum, information availability, availability of spectrum, refarming, relocation, valuation and efficient use of radio spectrum as well as protection of human health. For that purpose, each national delegation should have a co-ordinated view of all policy aspects affecting spectrum use in its Member State in relation with the issues to be discussed in the Group.

(5) The group will take into account the views of the industry and of all users involved, both commercial and non-commercial, as well as of other interested parties on technological, market and regulatory developments which may affect the use of radio spectrum. Spectrum users should be free to provide all input they believe is necessary. The group may decide to hear representatives of the spectrum users communities at group meetings where necessary to illustrate the situation in a particular sector.

(6) The Commission should report on a regular basis to the Council and the European Parliament on the results achieved under this decision, on policy objectives for radio spectrum in the Community as well as on planned future actions. This will allow for the provision of the appropriate political support to the policy objectives.

(7) Radio spectrum technical management includes the harmonisation and allocation of radio spectrum. Such harmonisation must reflect the requirements of general policy principles identified at Community level. Co-ordinated introduction in the Community of systems using radio spectrum is highly dependent on the various national approaches to assignment and licensing including with regard to spectrum pricing and license fees. These issues should therefore be discussed and where appropriate be harmonised at Community level.

(8) The Community approach should also benefit from co-operation with radio spectrum experts from national authorities responsible for radio spectrum management. Building on the experience of mandating procedures gained in specific sectors, such as S-PCS[8] and UMTS[9], a permanent, stable and uniform framework needs to be created at Community level to ensure harmonised availability of radio spectrum use and to provide adequate legal certainty. Harmonisation measures must be adopted as a result of mandates to national experts acting in appropriate spectrum management bodies including CEPT. Where necessary, the Commission should be able to make the results of such mandates compulsory for Member States, and where the results of such mandates are not acceptable, to take appropriate alternative action. This will in particular provide for the harmonisation of frequency spectrum necessary for the implementation of the European Parliament and Council Directive on the authorisation of electronic communications networks and services[10];

(9) A committee of national experts should also assist the Commission on the technical aspects of spectrum harmonisation, acting as an advisory or regulatory committee where applicable. In accordance with Article 2 of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission[11], measures for the implementation of this decision should be adopted by use of the advisory procedure provided for in Article 13 of that Decision. However, since part of the measures necessary for the implementation of this decision are measures of general scope within the meaning of Article 2 of that Decision , they should be adopted by use of the regulatory procedure provided for in Article 5 of that Decision.

(10) Appropriate information on present and future planning, allocation and assignment of radio spectrum, as well as conditions for access to and use of the whole radio spectrum are essential elements for investments and policy making. So are technological developments which will give rise to new spectrum allocation and management techniques and frequency assignment methods. Development of long term strategic aspects require proper understanding of implications of how technology evolves. Such information therefore has to be made accessible in the Community, without prejudice to confidential business and personal information protection under Directive 97/66/EC on data protection[12]. The implementation of a cross-sectoral spectrum policy makes the availability of information on the whole radio spectrum necessary. In view of the general purpose of harmonising spectrum use in the Community and in Europe, such information needs to be aggregated at a European level in a user-friendly manner.

(11) It is therefore necessary to complement existing Community and international requirements for publication of information on use of radio spectrum. At international level, the Reference Paper on Regulatory Principles negotiated in the context of the

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8 European Parliament and Council Decision 710/97/EC of 24 March 1997 on a co-ordinated authorisation approach in the field of satellite personal-communication services in the Community (OJ L 105, 23.4.97, p.4).

9 European Parliament and Council Decision 128/1999/EC of 14 December 1998 on the co-ordinated introduction of a third generation mobile and wireless communications system (UMTS) in the Community (OJ L 17, 22.1.1999, p.1.).

10 OJ

11 OJ L 184, 17.7.1999, p.23.

12 European Parliament and Council Directive 97/66/EC of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector (OJ L 24, 30.01.1998, p.1).

World Trade Organisation by the Group on Basic Telecommunications also requires that the existing state of allocated frequency bands be made publicly available. Commission Directive 96/2/EC (the Mobile Directive)[13] requires Member States to publish every year or make available on request the allocation scheme of frequencies, including plans for future extension of such frequencies, but only covers mobile and personal communications services. Moreover, Directive 1999/5/EC (R&TTE Directive)[14] as well Directive 98/34/EC[15] require Member States to notify to the Commission the interfaces which they have regulated so as to assess their compatibility with Community law.

(12) The Mobile Directive was at the origin of the adoption of a first set of measures by CEPT such as ERC Decision (ERC/DEC/(97)01) on the publication of national tables of radio spectrum allocations. It is necessary to ensure that CEPT solutions reflect the needs of Community policy and are given the appropriate legal basis so as to be implemented in the Community. For that purpose, specific measures have to be adopted in the Community both on procedure and substance.

(13) Community undertakings should obtain fair and non-discriminatory treatment on access to spectrum in third countries. As access to radio spectrum is a key factor for business development and public interest activities, it is also necessary to ensure that Community requirements for radio spectrum are reflected in international planning.

(14) Implementation of Community policies may require co-ordination of radio spectrum use, in particular the provision of communications services including Community-wide roaming facilities. Moreover, certain types of spectrum use entail a geographical coverage which goes beyond the borders of a Member State and allow for transborder services without requiring the movement of persons, such as satellite communications services. It is therefore necessary that the Community be adequately represented in the activities of all relevant international organisations and conferences related to radio spectrum management matters, such as within ITU and its World Radiocommunications Conferences[16]. In international negotiations, Member States and the Community should develop a common action and closely cooperate during the whole negotiations process so as to safeguard the unity of the international representation of the Community. As a consequence, Member States should support the request by the Community in view of involvement in such negotiations, based in particular on the procedures which had been agreed in the Council conclusions of 3 February 1992 for the World Administrative Radio Conference and as confirmed by the Council conclusions of 22 September 1997 and 2 May 2000. For such international negotiations, the Commission sets out the objectives to be achieved in the context of Community policies, in view of obtaining endorsement by Council on the positions to be taken by Member States at international level. Member States accompany any act of acceptance of any agreement or regulation within international fora in charge of or

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13 Commission Directive 96/2/EC of 16 January 1996 amending Directive 90/388/EEC with regard to mobile and personal communications (OJ L 20, 26.01.1996, p.59).

14 European Parliament and Council Directive 1999/5/EC of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (OJ L 91, 7.4.1999, p.10).

15 European Parliament and Council Directive 98/34/EC of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (OJ L 204, 21.7.1998, p. 37).

16 The Commission reported on the Community issues at stake in WRC in COM(1997) 304, COM(1998) 298 and COM(2000) 86.

concerned with spectrum management by a joint declaration stating that they will apply such agreement or regulation in accordance with their obligations under the Treaty establishing the European Community.

(15) The inherent international nature of spectrum issues may require the adoption of a number of agreements with third countries which also affect frequency bands usage and sharing plans, in view in particular of trade and market access, including in the World Trade Organisation framework, free circulation and use of equipment, communications systems of regional or global coverage such as satellites, safety and distress operations, transportation systems, broadcasting technologies, and research applications such as radio-astronomy and Earth observation.

(16) It is necessary, due to the potential commercial sensitivity of information which may be obtained by national authorities in the course of their action relating to spectrum policy and management, to establish common principles applicable to these national regulatory authorities in the field of confidentiality. Moreover, members of the institutions of the Community, members of committees and the officials and other servants of the Community are required by Community law and in particular Article 214 of the Treaty not to disclose information of the kind covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components.

(17) Taking into account international trade obligations of the European Union and its Member States, Member States should implement this common framework for spectrum policy, in particular through their national authorities and provide all information required to the Commission to assess the proper implementation throughout the Community.

(18) This decision should enter into force without delay while the existing UMTS and S-PCS Decisions should remain in force until they reach their date of expiry as they provide for a legal basis for ongoing harmonisation measures and specific solutions for UMTS and S-PCS.

HAVE ADOPTED THIS DECISION:

Article 1
Purpose

The purpose of this decision shall be to

(1) create a policy framework to address the strategic planning and harmonisation of the use of radio spectrum in the Community taking into consideration in particular economic, health, public policy, cultural, scientific, social and technical aspects of Community policies as well as the various interests of radio spectrum users communities with the aim of optimising the use of spectrum and of avoiding harmful interference;

(2) establish a procedural framework to ensure the effective implementation of radio spectrum policy in the Community, and in particular establish a general methodology for harmonisation of the use of radio spectrum;

(3) ensure the co-ordinated and timely provision of information on radio spectrum use and availability in the Community;

(4) safeguard Community interests in international negotiations where radio spectrum use affects Community policies.

This Decision is without prejudice to the specific rules adopted by Member States or the Community governing the content of audio-visual programmes intended for the general public as well as to the provisions of Directive 1999/5/EC, as well as to the right of Member States to organise their radio spectrum for public order and public security purposes.

Article 2
Definitions

For the purposes of this Decision, the following definitions shall apply:

(1) Radio spectrum shall include at least radio waves in frequencies between 9 KHz and 3000 GHz; radio waves are electromagnetic waves propagated in space without artificial guide;

(2) Allocation of a radio frequency band shall mean the entry of a radio frequency band in a table of radio frequency allocations for the purpose of its use by one or more types of services under specified conditions;

(3) Assignment of a radio frequency shall mean the authorisation given by an authority to use a radio frequency under specified conditions.

Article 3
Radio Spectrum Policy Framework

In view of the strategic planning and harmonisation of the use of radio spectrum in the Community, the Commission shall be assisted by a consultative group entitled the Senior Official Spectrum Policy Group (hereinafter referred to as ‘the Group’).

The Group shall be composed of senior representatives of Member States and of the representative of the Commission, and shall meet at least twice a year under the chairmanship of the Council Presidency. The Commission shall be in charge of the secretariat of the Group.

The Group shall consult, as it may deem appropriate, representatives from the various sectors of activities and citizen representatives affected by or requiring the use of radio spectrum in the Community and in Europe.

Article 4
Function of the Group

The Group shall contribute to the formulation, preparation and implementation of a radio spectrum policy by delivering opinions to the Commission either at the Commission's request or on its own initiative, and contribute to the preparation of the Commission's report referred to in Article 13.

The Group shall in particular:

(1) monitor the evolution of the use of and access to radio spectrum in the Community as well as at national, regional, and global levels;

(2) review current needs and anticipate future needs for radio spectrum for commercial as well as non-commercial applications in the Community, based in particular on strategic, economic, technological, political, health, social and cultural aspects of radio spectrum use, in view of the fulfilment of Community policy objectives; advise the Commission on strategic planning of radio spectrum use, and where necessary, balance the various requirements for radio spectrum of different users;

(3) advise the Commission on regulatory, international, technical, economic and political developments affecting the use of spectrum, as well as on the need for harmonisation measures at Community level for radio spectrum use to implement Community policies;

(4) assess the need for European common proposals to be developed in view of international negotiations;

(5) assist in the preparation of the Commission annual report on the developments impacting on existing and future use of radio spectrum in the Community;

(6) encourage the exchange of information among Member States on the evolution of the use of radio spectrum in the Community.

Article 5
Regulatory framework and the Committee

The Commission shall be assisted by a Committee to be known as the Radio Spectrum Committee, composed of representatives of the Member States and chaired by a representative of the Commission. This committee shall act pursuant to Decision 1999/468/EC.

Article 6
Harmonisation Measures

(1) Where appropriate, and taking into account where possible the advice of the Group, the Commission shall propose measures to harmonise the use of radio spectrum, assignment methods, conditions for such use, as well as the availability of information related to the use of radio spectrum.

(2) For these purposes, the Commission shall give mandates to the CEPT, setting out the tasks to be performed and the timetable therefor. The Commission shall be assisted by the Radio Spectrum Committee acting in accordance with Article 7.

(3) On the basis of the work completed pursuant to paragraph 2, the Commission shall decide whether the results of the mandate are acceptable and, if so, may decide to make such results mandatory for the Member States, which shall implement them in a deadline to be determined. These Decisions shall be published in the Official Journal of the European Communities. For the purpose of this paragraph (3), the Commission shall be assisted by the Radio Spectrum Committee acting in accordance with Article 8.

(4) Notwithstanding paragraph 3, if the Commission or any Member State considers that the work done on the basis of a mandate granted pursuant to paragraph (2) is not progressing satisfactorily having regard to the set timetable or if the results of the mandate are not acceptable, the Commission may adopt measures to achieve the objectives of the mandate, in accordance with Article 8.

Article 7
Advisory Procedure

Where reference is made to this article, the advisory procedure laid down in Article 3 of Decision 1999/468/EC shall apply, in compliance with Article 7(3) and Article 8 thereof.

Article 8
Regulatory Procedure

Where reference is made to this article, the regulatory procedure laid down in Article 5 of Decision 1999/468/EC shall apply, in compliance with Article 7(3) and Article 8 thereof. The period provided for in Article 5(6) of Decision 1999/468/EC shall be three months.

Article 9
Availability of Information on Spectrum Allocation and Assignment

Member States shall publish without delay the information as defined in the Annex to this Decision and shall keep this information up-to-date.

Moreover, Member States shall take measures to develop an appropriate data base in order to make such information available to the public in a harmonised way.

Article 10
Relations with third countries and international organisations

(1) The Commission shall monitor developments regarding radio spectrum in third countries and in international organisations, which may have implications for the implementation of this Decision.

(2) The Member States shall inform the Commission of any difficulties created, de jure or de facto, by third countries or international organisations for the implementation of this decision.

(3) The Commission shall report regularly on the results of the application of paragraphs (1) and (2) to Council and European Parliament and may propose measures with the aim of securing the implementation of the principles and objectives of this Decision, where appropriate. Whenever necessary, common positions shall be agreed to ensure Community coordination among Member States.

(4) Measures taken pursuant to this Article shall be without prejudice to the Community's and Member States' rights and obligations under relevant international agreements.

Article 11
Notification

Member States shall give the Commission such information as it may require for the purpose of verifying the implementation of this Decision. In particular, Member States shall immediately inform the Commission about the implementation of the results of the mandates pursuant to Article 6(3).

Article 12
Confidentiality

(1) Member States shall not disclose information covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components.

(2) Paragraph 1 shall be without prejudice to the right of national authorities to undertake disclosure where it is essential for the purposes of fulfilling their duties, in which case such disclosure shall be proportionate and shall have regard to the legitimate interests of undertakings in the protection of their business secrets.

(3) Paragraph 1 shall not preclude publication of information on conditions linked to the granting of rights to use spectrum which does not include information of a confidential nature.

Article 13
Report

The Commission shall report on an annual basis to the Council and the European Parliament on the activities developed and the measures adopted pursuant to this Decision, on the results

of the work done by the Group as well as on future actions envisaged pursuant to this Decision.

Article 14
Implementation

Member States shall take all measures necessary, by law or administrative action, for the implementation of this Decision and all resulting measures.

Article 15
Entry into Force

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Communities*.

Article 16
Addressees

This Decision is addressed to the Member States.

Done at Brussels, […]

For the European Parliament	*For the Council*
The President	*The President*

ANNEX

Pursuant to Article 9, and without prejudice to notification obligations under Directives 1999/5/EC and 98/34/EC, the following information shall be published:

1. Information regarding frequency allocation and assignment includes the following:

- existing allocations and assignments of radio spectrum as well as conditions for the use of radio spectrum, including where practicable, operating power, emission and any other technical constraints;

- plans for changes to existing allocations for the next two years at least, including relocation plans and review date of allocation;

- locations and geographical coverage linked to allocation plans;

- service actually operated, if different from allocated, and effective use of spectrum;

- reserved bands for new services;

2. Without prejudice to the provisions of specific legislation relating to communications networks and services,, publication shall include procedures for granting rights to use spectrum , and planned changes to spectrum use conditions. These shall include all types of obligations, charges and financial costs related to the use of radio spectrum, including administrative charges, usage fees and procedures for assignment of spectrum (including auctions).

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
27.11.2000

Workshop on frequency compatibility between radiocommunication services and coaxial cable telecommunications systems

1. Venue

The European Commission and the ECCA (European Cable Communications Association) invited parties concerned to a workshop on compatibility problems between coaxial cable systems and radiocommunication services.

The venue was on 23 November 2000 in Brussels. The workshop was chaired by Thormod Boe (LA7OF), Director, CEPT ERC's European Radiocommunications Office (ERO).

Participants were about 80, representing the cable telecom industry, the national regulatory authorities and several radiocommunication services. The Amateur Radio service was represented by the EUROCOM Chairman.

2. Presentations

- Chairman T. Boe welcomed the participants and introduced the workshop. The development of coaxial cable systems generates specific EMC problems which are to be addressed properly in order to achieve compatibility with radiocommunication services.
- Peter Kokken, secretary general ECCA, presented the cable communications society, founded 1955. Cable communications cover presently analog TV, digital TV, Internet and telephony.
- Alejandro Ulzurrun, European Commission, DG Enterprise, presented the EC services and the major relevant community law (EMC and R&TTE Directives).
- Bernard Desprez, France Telecom and Chairman CEPT ERC WGSE PT35, explained the task of SE35 on PLT and xDSL issues (frequency ranges, services to be protected). From a survey he presented, we noted that, in Austria, the 144-146 MHz segment is not allowed on the cable.
- Robert Kruger, ICAO Europe(aeronautical mobile service), presented the views of aviation's frequency managers. He insisted on the difficulty of measuring vertical radiation (through the roofs, not the walls, and with a cumulative effect).
- Marcel Labay, CCRM (Belgian Radocommunications Control), presented a study on digital TV versus analog TV cable signals (digital TV being 20 dB less disturbing).
- Christoph Wöste, RegTP (German regulatory authority), presented the German NB30 norm.

- Ray Thomas, Time Warner Cable (USA), referred to the major regulatory bodies for the US cable industry: FCC (Federal Communication Commission), NTIA (National Telecommunications and Information Administration), FAA (Federal Aviation Administration). The FCC fixes egress (leakage) to less than 20 µV/m (54-216 MHz) and 15 µV/m (5-54 MHz and 216-400 MHz) at 30m. Offsets are provided for aeronautical bands (since 1990). Field personal performs permanent testing and reporting. Networks are surveyed by airplane flyovers (specially equiped airplanes, scanning the area at low altitude, provide maps with hot spots). Repairs are speeded up by road runners, insuring quality high speed data services. On amateur radio issues, Time Warner Cable enjoys excellent collaboration with the ARRL.

3. Panel

The discussion panel was led by Terry Jeacock, UK RA and Chairman CEPT ERC SE, Job Wehrmeyer, Chairman ECCA IHN (Netherlands) and Ronald Storrs, Chairman Joint CENELEC/ETSI EMC WG.

The major concern was about the protection of safety services, especially aeronautical.

Gino Ducheyne, BIPT (Belgian regulatory authority), stated that in Belgium aeronautical bands are not allowed on the cable. BIPT performs measurements. G. Ducheyne called for a European harmonized standard for cable communications.

José Antonio Torre, CATV association (Spain), asked how to handle amateur radio. Chairman Boe stated that amateur radio is a radio service with the same duties and the same rights as any other radio service under the ITU radio regulations.

4. Conclusion

Alejandro Ulzurrun, in charge of the EMC Directive revision, stated that cable networks are fixed installations under the EMC Directive.

Harmonized standards are developed for products. Implementing a frequency harmonization for cable networks is an approach to be considered.

73.

Gaston Bertels
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@chello.be

EUROCOM Newsletter
23.12.2000

Regulatory Frameworks in the European Community

1. Regulatory Framework for Radio Spectrum Policy in the European Community

Appended to EUROCOM Newsletter of 14.07.2000 was the text of document COM(2000)407, bearing the proposal for a Decision of the European Parliament and of the Council on a Regulatory Framework for Radio Spectrum Policy in the European Community.

This proposal was commented in annex 1 of the EUROCOM Newsletter of 20.07.2000.

CONTENT : this proposal seeks to complement the spectrum management activities of the International Telecommunications Union/World Radiocommunications Conference (ITU/WRC) and the European Conference of Postal and Telecommunications administrations (CEPT) and of the Member States.

The purpose of this proposal for a Decision is to create a policy framework to advise the Commission on market, technological and international developments impacting on the use of radio spectrum in the areas of communications, broadcasting, transport and R&D Community policies.

The main objectives of the proposal are to:
- to create a senior Official Spectrum Policy Group which should advise the Commission on the need to harmonise the use of radio spectrum in relevant Community policy areas;
- to provide for a legal Community framework to ensure effective implementation of radio spectrum with the assistance of a Radio Spectrum Committee;
- to ensure coordinated and timely provision of information on radio spectrum use and availability in the Community;
- and to safeguard Community interest in international trade and radiocommunications negotiations.

The proposal was referred to the Committee on Industry, External Trade, Research and Energy (ITRE). MEP Angelika Niebler is rapporteur for this proposal. Her draft report has not yet been made available.

2. Regulatory Framework for electronic communications networks and services

In the pipeline is also proposal COM(2000)393 for a directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services .

CONTENT : this is one of six proposals that together create a new framework for the regulation of electronic communications networks and services. This directive seeks to respond to the convergence phenomenon by covering all electronic communications networks and services within its scope.

It sets out a number of principles and objectives for regulators (National Regulatory Authorities) to follow, as well as certain procedures to which they are subject such as consultation and publication of information.

It establishes a series of tasks in respect of management of scarce resources such as radio spectrum and numbering. In particular, NRAs are required to manage spectrum efficiently and have a right to permit the trading of frequency assignments, subject to certain safeguards.

It also contains a number of horizontal provisions common to more than one measure in the package. These include the definitions of significant market power, the procedure to be used for market analysis, harmonisation measures, as well as provisions for the resolution of disputes between undertakings.

This proposal was also referred to ITRE and MEP Reino Paasilinna is rapporteur. His draft report is now available and will be presented for discussion at the Committee meeting January 8-9, 2001.

One interesting clue is the justification of amendment 3 of Article 2 : *The use of power lines for carrying communication services such as medium speed internet is not yet operational, but it is very likely that it will become a reality at the moment when the new framework enters into force.*

This relates to PLC (Internet on the mains). PLC is a highly disturbing system that threatens all short wave users (international broadcasting, safety services, etc) and constitutes a real menace to the amateur service HF bands. See EUROCOM Newsletter of 18.08.1999 and its annexes. It is likely that the promotors of PLC insisted on extending the definition of "electronic communications network" to ***electricity cables or wires, to the extent that they are used for conveying commercial communications purposes.***

DARC has prepared a document on PLC. The English version of this important explanatory document is appended (Annex 1). We will closely follow up further developments in this extremely worrying field.

3. Proposal for a directive of the European Parliament and the Council on access to, and interconnection of, electronic communication networks and associated facilities (COM(2000) 384)

This proposal was also referred to ITRE and rapporteur Renato Brunetta has drafted amendments to be discussed January 8-9, 2001.

Interesting are some considerations of the Explanatory Statement :

FREQUENCY ALLOCATION

22. Although the issue of frequency allocation is specifically dealt with in the directive on the authorisation of networks and services, a reference also needs to be made to it in this directive, given that greater access and interconnection necessarily depends on the optimisation and transparency of commercial and non-commercial uses of radio frequencies, the allocation of which has an influence on competition and the pan-European market. **There are too many disparities within Europe as regards frequency allocation, with many countries reserving too large a portion of the frequency band for military use**. Allocation arrangements should therefore be optimised and made more transparent. **One possible way of optimising the use of radio frequencies in Europe might be to introduce a frequency master plan.**

REGULATORY AUTHORITIES

23. Although the establishment of a **European authority** is perhaps not feasible as things stand at the moment, a strengthening of the Commission's powers to centralise harmonisation activities and the coordination of the introduction of new procedures would be extremely useful, given that the powers delegated to the various NRAs could lead to the directive's principles being applied differently from country to country.

24. Such a situation would not be consistent with the expansion and globalisation policies being pursued by many European operators and undertakings, nor would it be sustainable. Furthermore, differentiated application of the directives' principles would have the effect of hampering completion of the single market.

25. The **High-Level Communications Group** composed of representatives of the NRAs which is provided for in the framework directive is responsible for advising the Commission, but does not have a specific operational mandate. **Upgrading the role of this group would avoid the type of institutional problems that the establishment of a European authority would cause**.

26. Under the current wording of the proposals for directives, some of the duties assigned to the national regulatory authorities carry with them extremely extensive discretionary powers, which could result in major disparities between the various Member States: with the exception of the market competitiveness assessment, in respect of which the Commission is to publish Guidelines (which, furthermore, are soft law measures, which means that the national authorities will have a degree of discretion in their application), there will very probably be significant differences in the way in which each national regulatory authority interprets its own role.

ENVIRONMENTAL IMPACT OF THE DEVELOPMENT OF THE TELECOMS MARKET

27. Lastly, although this is not specifically the subject of this directive, it should be pointed out that, owing to the necessary increase in transmission infrastructure, the development of the telecoms market will have an impact on

the environment, the landscape and residents' peace of mind (since it might lead to health fears). The process should therefore be continuously monitored with a view to minimising any adverse effects on the environment, the landscape and residents' peace of mind by means of appropriate agreements and other arrangements with governments and local authorities.

We have put in bold print a few remarks of the rapporteur on topics we will have to monitor carefully :

- need of a frequency master plan (share of the military)
- upgrading the role of the High Level Communications Group, a consultative body for communications network matters; a similar consultative body is also proposed for radio spectrum policy (item 1)
- health fears, a growing issue.

73.

Gaston Bertels
EUROCOM Chairman

Our very best wishes for a Merry Christmas and a Happy New Year !

Annex : 1

03.10.2000

To all radioamateurs

RTA and DARC e.V. present this document as a contribution to inform the amateur radio community on the issue of PLC and as discussion material to be used in public relations efforts. Latest developments are taken into account.

The paper is a common effort of DF7VX, DJ6AN, DJ1ZB, Mrs Volmer, DL2CH, DJ8CY, DF5DP, DF4JI, DL9MH and DF9IC and of the member societies of the RTA.

Translated by ON4WF.

PLC – not recommended

1. PLC – How it works

PLC (PLT) is the acronym for Power Line (Tele) Communication. Intended is to implement telephony and high rate Internet datatransmission on the existing 230 V (50 Hz) power grid in the users home, as well as Data, Audio and Video transmission from outlet to outlet inside a building or dwelling place (domotics). The datatransmission occurs broadband on radio frequencies up to 30 MHz. Not intended for the transmission of radiowaves on frequencies up to 30 MHz, the mains act as radiating antennas. PLC operators are (or will be) subject to radiation limits. Legal reference is the not yet enforced NB 30 frequency management norm. Most PLC systems will not be up to these constraints and consequently exceed the limits.

It has to be noted, that several existing appliances such as babyphones, garagedoor openers and heating controls are also mains channelled PLC applications. Using very low frequencies instead of high frequencies, these applications are free from undermentioned shortcomings and appropriate for domestic use.

2. PLC disturbs short wave radio services

PLC short wave frequencies have since long been allocated to various radio services such as broadcasting, air and maritime communications, fixed and mobile radio services, military, security services, radioastronomy, etc. not to forget the amateur radio service. Even with radiation limited to the NB30 norm, short wave reception is considerably disturbed because the receiving antennas cannot be set up far enough from the mains. Medium waves broadcasting and other frequencies can also be disturbed. These disturbances can endanger the very existence of some radio services, such as short wave broadcasting and the worldwide amateur radio service.

3. Short wave radio disturbs PLC

Widely distributed power lines, acting as antennas, not only produce strong disturbing radiation but also collect all kinds of high frequency signals, resulting in high noise levels on the mains. Regulations provide no legal protection of PLC against disturbances. High noise levels can considerably lower the datarate and even disrupt transmission, preventing the service provider to furnish the garanteed datarate. PLC's immunity from disturbances is determined by the degree of protection built in the system itself. High immunity calls for a corresponding degree of protection measures, detrimental to the effective transmission capacity (datarate).

4. PLC can disturb other electronic devices

Since PLC signals, travelling on the power mains (230V - 50 Hz), directly access all mains fed devices, it is likely that a multitude of electronic devices will suffer interference, in particular entertainment and medical equipment in hospitals and consulting rooms. Most such devices have no special protection against PLC signals and are exposed to disturbance. In critical locations, such as intensive care services, human lives can be endangered. For safety's sake, each device will then need appropriate and expensive protection measures.

5. PLC is unsure

A paper on PLC, published by the society for science and technology of the Dresden Technical University, concludes that PLC efficiency suffers from the mains “impedance unstability” resulting from totally uncontrolable consumer on- and off-switching.

6. Right now, PLC is an outdated system

Electronic devices and modulation systems used for PLC draw on the latest technical developments in order to assure proper datatransmission on since long heavily polluted power wires. Compared to alternative techniques, the PLC datatransmission system, with a datarate limited to some 2 MB/second, does not even match ADSL (datatransmission on telephone wires at 8 MB/second) commonly presented to the general public. Amateur radio operators consider cable TV datatransmission a valuable alternative. ADSL also, provided that nearby amateur radio frequencies are protected by adequate filtering. These amateur radio reserves do not in any case extend to future alternative solutions such as fiberglas cable, microwave systems for small cells or the oncoming UMTS mobile system.

7. PLC is exposed to eavesdropping and malicious jamming

Like all radio signals, PLC can be intercepted and copied by anybody in the home or building. Therefore providers will take steps to secure PLC transmissions. Protection efficiency will depend upon securing measures, which ordinary end users cannot control. Users have no means to evaluate risks and cannot decide when to protect themselves. Since no connection is needed, eavesdropping is easy. Considering the expected numbers of users, illegal copying will rise to unheard of summits, and the forseeable lack of data security is extremely high. Since radio transmissions are exposed to interference, a user terminal can easily be disturbed by a nearby jammer, even with low power.

8. PLC interference breaks the freedom of information

PLC can totally disrupt short wave broadcast reception cherished by our foreign fellow-citizens, as well as medium wave broadcasting and other radio services, such as the international Amateur Radio service. This is an infringement of Article 10 of the European Convention on Human Rights (fundamental right to active and passive freedom of information) since access to not otherwise accessible information is denied. On the other hand, practically all information and services offered by PLC are accessible through other and at least equally valuable or better techniques.

9. PLC raises completely new legal issues

Problems related to the delivery of data by power companies to end users at the limit of the property or at the power outlet in house (as well as the technical and legal liability for the PLC connection and for the content of the PLC exchange), refusal of citizens to accept the presence of PLC data on their property, endangered freedom of information and lack of data safety as well as questions about the applicable legislation on electromagnetic compatibility (EMC) in case of interference, raise legal issues and endanger good neighbourhood.

10. PLC is not economically justified

Compared to other data transmission systems, PLC is a waste of economical resources. In the United Kingdom, the promotors of PLC withdraw soon after some initial enthousiasm. Taking into account the cost and the return ratio of PLC, it is forseeable that market mechanisms, once coverage becomes widespread, will confirm likely negative results. The limited range of PLC restricts the implementation to densely populated areas, where a multitude of users have to share a limited bandwidth.

11. PLC's efficiency does not meet the growing need of quick datatransmission

In distributed workplaces, professional computers nowadays show datatransmission rates of 100 Mbit/s. Industry prepares a norm based on 10 Gbit/s. Professionals agree that datatransmission to PC terminals follows the law of Moore, stating a two-fold increase of processing speed every 15 to 18 months. Personal computers of individual users will benefit from this technical development. Evidently, the projected PLC datarates of some 2 Mbit/s from provider to user will be outdated, once widely spread. Shareholders of PLC promoting undertakings should be aware of this when making decisions on the stock exchange.

12. Opposition

Opponents expressed their concern in a public hearing on frequency management presented by the german regulatory authority, more precisely about the norm NB 30. Significant is the negative position taken up by representatives of safety services, military, broadcasting, internationally renown manufacturers of short wave equipment and audio and HF measuring instruments, other radio services and short wave users such as radioastronomy.

13. Their experimental service threatened to death, the radio amateurs strongly oppose PLC

Using very sensitive receivers for their experimental service, radio amateurs are especially concerned. In an official hearing of the german ministry of trade, they firmly expressed their opposition to PLC. Amateur radio operators have observed pilot projects, measured and made available the interfering signals. The DARC has participated as observer to tests performed by the spectrum surveillance service.

Radio amateurs have taken part in press conferences of future PLC providers and their questions have given rise to considerable uncertainty. Radio amateurs, primarily concerned, have produced press releases against PLC, participated to TV programmes, given interviews to local newspapers and alerted the European and the German members of Parliament. The DARC has exposed the issue to EUROCOM (European Union workgroup of the International Amateur Radio Union) as well as to the IARU conference and to the radio amateur community throughout Europe and worldwide.

Common action of European amateur radio societies has been developed. Outside of Europe, progress was noted in New Zealand and in Australia where radio amateurs showed considerable awareness and concern about these critical developments.

Karl Erhard Vögele, DK9HU
President DARC e.V.

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTERS

1999

November 1999

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
08.01.1999

R&TTE

It is expected that the R&TTE Directive will be adopted by the Council before the end of January 1999 and that it will be in force by February 2000.

The Telecommunication Conformity Assessment and Market surveillance Committee TCAM will be established soon after the Directive is adopted.

ETSI ERM-TG6

The TG6 working group met again in Brussels on 6-7 January 1999. A "guidelines" ad hoc subgroup met also in Brussels on 5-6 January 1999.

The working programme was finalized and adopted.

A "guidelines" document is being developed, to be used by experts for writing harmonized standards for the different classes of telecommunication equipment (mostly radio equipment) to assess conformity with the R&TTE Directive. This document will probably be adopted at the next meeting of TG6 on 29 January 1999 in Sophia Antipolis (Nice).

DJ1ZB and ON4WF participated to the TG6 meetings in Brussels. Papers were produced to make the working group aware of the proper nature and the specific needs of the Amateur Radio service, as far as commercial equipment is concerned.

Council Recommendation on the exposure to electromagnetic fields

1. A proposal of DG V

Directorate General V of the European Commission is in charge of Employment, Industrial Relations and Social Affairs. This Directorate is not located in Brussels, but in Luxemburg.

On 11/06/98, DG V presented a proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz - 300 GHz).

This proposal was issued under the reference Com(1998) 268. The official in charge is John Ryan.

The proposal was submitted to the European Parliament and examined by the Parliamentary Committee on the Environment, Public Health and Consumer protection (ENVI), as well as by the Committee on Research, Technological Development and Energy. The rapporteurs are

- Gianni Tamino, MEP (Environment), Italia, Federazione dei Verdi
- Umberto Scapagnini, MEP (Energy), Italia, Forza Italia.

Gianni Tamino issued a Draft Report on 6 November 1998, referenced PE 228.570.

This Draft Report is expected to be adopted by the ENVI Committee on 18/02/1999 and by the Parliament on 08/03/1999.

The Council Recommendation is expected to be adopted in June 1999.

2. Documents

The Commission document COM (1998) 268 is not available in electronic form. It is a 29 pages document.

The Draft Report of the European Parliament PE 228.570 is available in electronic form. It is a 24 pages document.

The technical details of the proposed limitations are exposed in the Annexes of the Council Recommendation :

- Annex I Definitions of physical quantities, basic restrictions and reference levels
- Annex II Basic restrictions
- Annex III Reference levels
- Annex IV Exposure from sources with multiple frequencies

The text of Annexes II and III and IV, as proposed by the Council, are reproduced in the Draft Report of the ENVI Committee, together with the drafted amendments.

Consequently, the Draft Report of the ENVI Committee gives a detailed view on the subject. This Report is appended to the present Newsletter (zipped).

The Directorate-General V also published a book (A4 - 163 pages) on "Non-ionizing radiation - Sources, exposure and health effects" (ISBN 92-827-9276-5). It is for sale in the national bookstores/agencies where the Official Publications are available.

3. Scope of the Recommendation

The Commission proposal recommends that the Member States :

- adopt a framework of basic restrictions and reference levels
- implement measures to protect the general public against exposure to electromagnetic fields
- aim to achieve respect of the basic restrictions given in Annex II for public exposure
- provide information to the public on the health impact of electromagnetic fields and the measures taken to address them
- promote and review research relevant to EMF and human health
- prepare reports on the adoption and implementation of measures that they take and inform the Commission thereof after a period of three years.

The Recommendation of the Council focuses mainly on the thermal effects of HF EMFs. The values for the basis restrictions are in accordance with the conclusions of the International Commission on Non-Ionising Radiation Protection (ICNIRP).

For example, in the frequency range of 10 - 400 MHz, the reference levels are :

- E-field : 28 V/m
- H-field : 0.073 A/m
- B-field : 0.092 µT
- Power : 2 W/m

On the other hand, the drafted INVI Committee amendments tend to take into account the still disputed long-term non-thermal effects of exposure to EMFs, such as cancer, tumors, leukaemia, alterations of the nervous, endocrine and immune systems, etc.

For the frequency range of 400 kHz - 300 GHz, the ENVI Committee amendments propose to lay down a maximum permissible exposure level, to be achieved over a ten-year period, of :

- a magnetic flux density of 0.01 µT
- an E-field strength of 1 V/m.

4. Legislative procedure

This proposal is a Council Recommendation to the Member States, issued with regard to Art. 129 of the Treaty establishing the European Community (1957).

Art. 129 (Title X - Public Health) states :

…

4. In order to contribute to the achievement of the objectives referred to in this article, the Council:

- *acting in accordance with the procedure referred to in Article 189b, after consulting the Economic and Social Committee and the Committee of the Regions, shall adopt incentive measures, excluding any harmonization of the laws and regulations of the Member States*

- *acting by a qualified majority on a proposal from the Commission, shall adopt recommendations.*

Art. 189b states, that the Commission shall submit a proposal to the European Parliament and to the Council. The Council shall adopt a *common position*. If the EP rejects this common position, a Conciliation procedure is started. Incidentally, this procedure has been followed for the R&TTE Directive. It applies also for *incentive measures* in the field of Public Health to be adopted by the Council.

The procedure of Art. 189b does not apply to *Recommendations* of the Council in the field of Public Health. In the latter case, the Council informs the European Parliament, receives its opinion and decides if proposed amendments are to be adopted or not.

5. Evaluation

The original proposal of the European Council, based on the conclusions of the ICNIRP, puts forward reasonable measures for the protection of human beings against EMFs. Industry and consumers, as well as the amateur radio service, could probably implement them without to much trouble.

The drafted amendments of the Tamino report, if adopted, would be much more restrictive. Industry and the consumer market, as well as the amateur service, would hardly be able to live with them…

Therefore it seems improbable that the Tamino report, if adopted by the Parliament, would be accepted by the Council.

Anyhow, as it is already the case in the USA, the Member States of the European Union will have to legislate accordingly to the Council Recommendation, whatever it will be.

6. Allies

Up til now, industry and the consumer market do not seem to be aware of the problem.

Manufacturers, Public Network operators and even Telecommunication Administrations are our allies in this trial.

During this week's TG6 meeting, we informed some of the participants :

- Tim CULL — Motorola UK
- Jean PIQUEMAL — French Ministry of Finance and Industry
- Georges De BRITO — France Telecom / CNET
- Joseph GELAS — Matra Communication (France)

Tim CULL was the only one who knew about it.

I will circulate this EUROCOM Newsletter to the 29 participants of the TG6 working group.

7. Action

I propose that an IARU/EUROCOM delegation pays a visit to DG V in Luxemburg. I will ask John RYAN for a suitable date.

Meanwhile, I suggest that the IARU Region 1 Member Societies within the EU contact their influent MEP to make them aware of the technical and economic problems the Tamino Report, if adopted, would cause.

I wish you all a very Happy New Year

Gaston Bertels
EUROCOM Chairman

EUROPEAN PARLIAMENT

6 November 1998

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DRAFT REPORT

on the proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz (COM(98)0268 - C4-0427/98 - 98/0166(CNS))

Committee on the Environment, Public Health and Consumer Protection

Rapporteur: Mr Gianni Tamino

C O N T E N T S

By letter of 12 June 1998 the Council consulted Parliament, pursuant to Article 129 of the EC Treaty, on the proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz.

At the sitting of 15 July 1998 the President of Parliament announced that he had referred this proposal to the Committee on the Environment, Public Health and Consumer Protection as the committee responsible and the Committee on Research, Technological Development and Energy for its opinion.

At its meeting of 21 July 1998 the Committee on the Environment, Public Health and Consumer Protection appointed Mr Gianni Tamino rapporteur.

It considered the Commission proposal and the draft report at its meeting(s) of ... .

At the latter/last meeting it adopted the draft legislative resolution by ... votes to ..., with ... abstention(s)/unanimously.

The following took part in the vote/The following were present for the vote: ..., chairman/acting chairman; ... (and ...), vice-chairman/chairmen; Tamino, rapporteur; ..., ... (for ...), ... (for ... pursuant to Rules 138(2)), ... and ... .

The opinion(s) of the Committee on Research, Technological Development and Energy (and the Committee on ...) (and the Commission declaration/position) is (are) attached/will be published separately./; the Committee on Research, Technological Development and Energy (and the Committee on ...) decided on ... not to deliver an opinion/opinions.

The report was tabled on ... .

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

A
LEGISLATIVE PROPOSAL

Proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz (COM(98)0268 - C4-0427/98 - 98/0166(CNS))

The proposal is approved with the following amendments:

Text proposed by the Commission	Amendments by Parliament
(Amendment 1) Recital 1a (new)	
	Whereas the Treaty also makes provision for protecting the health of workers and the rights of consumers;
(Amendment 2) Recital 1b (new)	
	Having regard to the precautionary principle established in Article 130r of the EC Treaty and the ALARA principle under which, where appropriate, action must be taken to optimise exposure to electromagnetic radiation;
(Amendment 3) Recital 2	
Whereas the European Parliament in its resolution on combating the harmful effects of non-ionising radiation[3] called on the Commission to propose measures seeking to limit the exposure of workers and the public to non-ionising electromagnetic radiation;	Whereas the European Parliament in its resolution on combating the harmful effects of non-ionising radiation[3] called on the Commission to propose legislative measures seeking to limit the exposure of workers and the public to non-ionising electromagnetic radiation;
[3] OJ C 205, 25.7.1994, p. 439	[3] OJ C 205, 25.7.1994, p. 439

(Amendment 4)
Recital 3

Whereas Community minimum requirements for the protection of health and safety of workers in relation to electromagnetic fields exist for work with display screen equipment[4]; whereas Community measures were introduced to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding[5] which oblige, inter alia, employers to assess activities which involve a specific risk of exposure to non-ionising radiation; whereas minimum requirements have been proposed for the protection of workers from physical agents[6] which include measures against non-ionising radiation;	Whereas Community minimum requirements for the protection of health and safety of workers in relation to electromagnetic fields exist for work with display screen equipment[4]; whereas Community measures were introduced to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding[5] which oblige, inter alia, employers to assess activities which involve a specific risk of exposure to non-ionising radiation; whereas minimum requirements, but insufficiently strict, have been proposed for the protection of workers from physical agents[6] which include measures against non-ionising radiation;
(4) OJ L 156, 21.6.1990, p. 14-18. (5) OJ L 348, 28.11.1992, p. 1-8. (6) OJ C 77, 18.3.1993, p. 12 and OJ C 230, 19.8.1994, p. 3-29.	(4) OJ L 156, 21.6.1990, p. 14-18. (5) OJ L 348, 28.11.1992, p. 1-8. (6) OJ C 77, 18.3.1993, p. 12 and OJ C 230, 19.8.1994, p. 3-29.

(Amendment 5)
Recital 7

Whereas there is a need to establish a Community framework for the protection of the public with regard to electromagnetic fields by means of recommendations to Member States.	Whereas there is a need to establish a Community framework for the protection of the public with regard to electromagnetic fields.

(Amendment 6)
Recital 8

Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to	Whereas this framework, which can draw on the large body of scientific documentation which already exists, must be based on the best available scientific data and advice in this

electromagnetic fields; whereas advice on this matter has been given by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee.

area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields;

(Amendment 7)
Recital 8a (new)

Whereas many studies point to the probability of long-term effects even at exposure levels of less than 0.1-0.2 µT(micro tesla);

(Amendment 8)
Recital 9

Whereas such basic restrictions and reference levels should apply to all radiations emitted by electromagnetic fields with the exception of optical radiation and ionising radiation; whereas for the former relevant scientific data and advice still requires additional consideration, and whereas for the latter Community provisions already exist;

Whereas such basic restrictions and reference levels should apply to all radiations emitted by electromagnetic fields with the exception of optical radiation and ionising radiation, in respect of which Community provisions already exist;

(Amendment 9)
Recital 16

Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection; whereas these recommendations should be reviewed in particular in the light of guidance by competent international organisations such as the International Commission on Non-Ionising Radiation Protection;

Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection;

(Amendment 10)
RECOMMENDATION II

II. Member States, in order to provide for a high level of health protection against exposure to electromagnetic fields: a) adopt a framework of basic restrictions and reference levels using as a basis that given in Annex I.B; b) implement measures in respect of sources or practices giving rise to exposure of the general public to electromagnetic fields on the basis of such a framework; c) aim to achieve respect of the basic restrictions given in Annex II for public exposure;	II. Member States, in order to provide for a high level of health protection against exposure to electromagnetic fields, shall adopt the exposure limits set out in Annex II by the year 2008.

(Amendment 11)
RECOMMENDATION III

III. Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II: a) use the reference levels given in Annex III for exposure assessment purposes to determine whether the basic restrictions are likely to be exceeded; b) evaluate situations involving sources of more than one frequency in accordance with the formulas set up in Annex IV, both in terms of basic restrictions and reference levels;	III. Member States shall, in keeping with the limits set out in Annex II, lay down minimum safety distances from electrical equipment and minimum distances from public buildings, housing and workplaces for the siting of high-voltage transmission lines, radar equipment and broadcasting and re-broadcasting transmitters, including cellular phone base stations.

(Amendment 12)
INVITES

the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the	the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the

matters covered in this recommendation under review, with a view to its revision and updating.

matters covered in this recommendation under review, with a view to its revision and updating, and to submit by 31 December 1999 a proposal for the revision of Directives 90/270/EEC on protecting the health and safety of workers against electromagnetic fields generated by display screen equipment and 73/23/EEC and 92/75/EEC with a view to laying down safety criteria for electrical equipment capable of producing electromagnetic fields and to labelling such products so as to provide consumers with information on the fields generated by electrical equipment as a function of distance and the type of use to which it is put.

(Amendment 13)
ANNEX I.B

B. Basic restrictions and reference levels

For the application of restrictions based on the assessment of possible health effects of electromagnetic fields, differentiation should be made between basic restrictions and reference levels.

- *Basic restrictions*. Restrictions on exposure to time-varying electric, magnetic, and electromagnetic fields that are based directly on established health effects and biological considerations are termed „basic restrictions“. Depending upon the frequency of the field, the physical quantities used to specify these restrictions are magnetic flux density (**B**), current density (**J**), specific energy absorption rate (SAR), and power density (**S**). Magnetic flux density and power density can be readily measured in exposed individuals.

- *Reference levels*. These levels are provided for practical exposure assessment purposes to determine if the basic restrictions are likely to be exceeded. Some reference levels are derived from relevant basic restrictions using measurements and/or computational

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techniques and some address perception and adverse indirect effects of exposure to EMFs. The derived quantities are electric field strength (**E**), magnetic field strength (**H**), magnetic flux density (**B**), power density (**S**), and limb current (I_L). Quantities that address perception and other indirect effects are (contact) current (I_C) and, for pulsed fields, specific energy absorption (SA). In any particular exposure situation, measured or calculated values of any of these quantities can be compared with the appropriate reference level. Respect of the reference level will ensure respect of the relevant basic restriction. If the measured value exceeds the reference level, it does not necessarily follow that the basic restriction will be exceeded. Under such circumstances, however, there is a need to establish whether there is respect of the basic restriction.

Quantitative restrictions on static electric fields are not given in these recommendations. However, it is recommended that annoying perception of surface electric charges and spark discharges causing stress or annoyance should be avoided.

Some quantities such as the magnetic flux density (**B**) and the power density (**S**) serve both as basic restrictions and reference levels, at certain frequencies (see Annex II and III).

(Amendment 14)
ANNEX II

Text proposed by the Commission

BASIC RESTRICTIONS

Depending on frequency, the following physical quantities (dosimetric / exposimetric quantities) are used to specify the basic restrictions on electromagnetic fields:

Between 0 and 1 Hz basic restrictions are provided for magnetic flux density for static magnetic fields (0 Hz) and current density for time varying fields up to 1 Hz, in order to prevent effects on the cardiovascular and central nervous system.

Between 1 Hz and 10 MHZ basic restrictions are provided for current density to prevent effects on nervous system functions.

Between 100 kHz and 10 GHz basic restrictions on SAR are provided to prevent whole-body heat stress and excessive localised heating of tissues. In the range 100 kHz to 10 MHZ, restrictions on both current density and SAR are provided.

Between 10 GHz and 300 GHz basic restrictions on power density are provided to prevent heating in tissue at or near the body surface.

The basic restrictions, given in Table 1, are set so as to account for uncertainties related to individual sensitivities, environmental conditions, and for the fact that the age and health status of members of the public vary.

Table 1: Basic restrictions for electric, magnetic and electromagnetic fields (0 Hz - 300 GHz).

Frequency range	Magnetic flux density (mT)	Current density (mA/m^2) (rms)	Whole body average SAR (W/kg)	Localised SAR (head and trunk) (W/kg)	Localised SAR (limbs) (W/kg)	Power density, S (W/m^2)
0 Hz	40	--	--	--	--	--
>0-1 Hz	--	8	--	--	--	--
1-4 Hz	--	8/f	--	--	--	--
4 - 1000 Hz	--	2	--	--	--	--
1000 Hz -100 kHz	--	f/500	--	--	--	--
100 kHz - 10 MHZ	--	f/500	0.08	2	4	--
10 MHZ - 10 GHz	--	--	0.08	2	4	--
10 - 300GHz	--	--	--	--	--	10

Notes

1. *f* is the frequency in Hz.
2. The basic restriction on the current density is intended to protect against acute exposure effects on central nervous system tissues in the head and trunk of the body and includes a safety factor .
3. Because of electrical inhomogeneity of the body, current densities should be averaged over a cross section of 1 cm^2 perpendicular to the current direction.
4. For frequencies up to 100 kHz, peak current density values can be obtained by multiplying the rms value by $\sqrt{2}$ (~1.414). For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $f = 1/(2t_p)$.
5. For frequencies up to 100 kHz and for pulsed magnetic fields, the maximum current density associated with the pulses can be calculated from the rise/fall times and the maximum rate of change of magnetic flux density. The induced current density can then be compared with the appropriate basic restriction.
6. All SAR values are to be averaged over any 6-minute period.
7. Localised SAR averaging mass is any 10 g of contiguous tissue; the maximum SAR so obtained should be the value used for the estimation of exposure.
8. For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $f = 1/(2t_p)$. Additionally, for pulsed exposures, in the frequency range 0.3 to 10 GHz and for localised exposure of the head, in order to limit and avoid auditory effects

caused by thermoelastic expansion, an additional basic restriction is recommended. This is that the SA should not exceed 2mJ kg^{-1} averaged over 10 g of tissue.

(Amendment 14)
ANNEX II

Amendments by Parliament

Deleted

(Amendment 15)
ANNEX III

Text proposed by the Commission

Reference Levels

Reference levels of exposure are provided for the purpose of comparison with values of measured quantities. Respect of all recommended reference levels will ensure respect of basic restrictions.

If the quantities of measured values are greater than the reference levels , it does not necessarily follow that the basic restrictions have been exceeded. In this case, an assessment should be made as to whether exposure levels are below the basic restrictions.

The reference levels for limiting exposure are obtained from the basic restrictions for the condition of maximum coupling of the field to the exposed individual, thereby providing maximum protection. A summary of the reference levels is given in Tables 2 and 3. The reference levels are generally intended to be spatially averaged values over the dimension of the body of the exposed individual, but with the important proviso that the localised basic restrictions on exposure are not exceeded.

In certain situations where the exposure is highly localised, such as with hand-held telephones and the human head, the use of reference levels is not appropriate. In such cases respect of the localised basic restriction should be assessed directly.

Field levels

Table 2: Reference levels for electric, magnetic and electromagnetic fields (0 Hz - 300 GHz, unperturbed rms values).

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (µT)	Equivalent plane wave power density S_{eq} (W/m^2)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10,000	$3.2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8 – 25 Hz	10,000	4,000/f	5,000/f	-
0.025 - 0.8 kHz	250/f	4/f	5/f	-
0.8 – 3 kHz	250/f	5	6.25	-
3 – 150 kHz	87	5	6.25	-
0.15 - 1 MHZ	87	0.73/f	0.92/f	-
1-10 MHZ	$87/f^{1/2}$	0.73/f	0.92/f	-
10 – 400 MHZ	28	0.073	0.092	2
400 - 2000 MHZ	$1.375\ f^{1/2}$	$0.0037\ f^{1/2}$	$0.0046\ f^{1/2}$	f/200
2 – 300 GHz	61	0.16	0.20	10

Notes:

1. *f* as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, S_{eq}, E^2, H^2, and B^2 are to averaged over any 6-minute period.
3. For frequencies exceeding 10 GHz, S_{eq}, E^2 , H^2, and B^2 are to be averaged over any $68/f^{1.05}$-minute period (*f* in GHz).
4. No E-field value is provided for frequencies <1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

For peak values, the following reference levels apply to the E-field strength (V/m), H-field strength (A/m) and the B-field (µT):

- For frequencies up to 100 kHz, peak reference values are obtained by multiplying the corresponding rms values by √2 (~1.414). For pulses of duration t_p the equivalent frequency to apply should be calculated as $f = 1/(2t_p)$.
- For frequencies between 100 kHz and 10 MHZ peak reference values are obtained by multiplying the corresponding rms values by

$$10^{\alpha}, \text{ where } \alpha = (0.665 \log(f/10^5)+0.176), \text{ f in kHz.}$$

- For frequencies between 10 MHZ and 300 GHz peak reference values are obtained by multiplying the corresponding rms values by 32.

Although little information is available on the relation between biological effects and peak values of pulsed fields, it is suggested that, for frequencies exceeding 10 MHZ, S_{eq} as averaged over the pulse width should not exceed 1000 times the reference levels or that field strengths should not exceed 32 times the fields strength reference levels. For frequencies between about 0.3 GHz and several GHz and for localised exposure of the head, in order to limit or avoid auditory effects caused by thermoelastic expansion, the specific absorption from pulses must be limited. In this frequency range, the threshold SA of 4-16 mJ kg^{-1} for producing this effect corresponds, for 30-µs pulses, to peak SAR values of 130-520 W kg^{-1} in the brain. Between 100 kHz and 10 MHZ, peak values for the fields strengths are obtained by interpolation from the 1.5-fold peak at 100 kHz to the 32-fold peak at 10 MHZ.

Contact currents and limb currents

For frequencies up to 110 MHZ additional reference levels are recommended to avoid hazards due to contact currents. The contact current reference levels are presented in Table 3. The reference levels on contact current were set to account for the fact that the threshold contact currents that elicit biological responses in adult women and children are approximately two-thirds and one-half, respectively, of those for adult men.

Table 3: Reference levels for contact currents from conductive objects (f in kHz)

Frequency range	Maximum contact current (mA)

0 Hz - 2.5 kHz	0.5
2.5 kHz - 100 kHz	0.2 f
100 kHz - 110 MHZ	20

For the frequency range 10 MHZ to 110 MHZ, a reference level of 45 mA in terms of current through any limb is recommended. This is intended to limit the localised SAR over any 6-minute period.

(Amendment 15)
ANNEX III (new)

Amendments by Parliament

PUBLIC EXPOSURE LIMITS TO BE COMPLIED WITH BY 2008

Frequency range	Magnetic flux density (μT)	Electric field strength (V/m)
1Hz → 2KHz	0.25	25
2KHz → 400 KHz	0.03	2.5
400 KHz → 300 GHz	0.01	1

(Amendment 16)
ANNEX IV

Text proposed by the Commission

Exposure from sources with multiple frequencies

In situations where simultaneous exposure to fields of different frequencies occurs, the possibility that these exposures will be additive in their effects must be considered. Calculations based on such additivity should be performed separately for each effect; thus separate evaluations should be made for thermal and electrical stimulation effects on the body.

Basic restrictions

In the case of simultaneous exposure to fields of different frequencies, the following criteria should be satisfied in terms of the basic restrictions.

For electric stimulation, relevant for frequencies from 1 Hz up to 10 MHZ, the induced current densities should be added according to:

$$\sum_{i=1Hz}^{10MHz} \frac{J_i}{J_{L,i}} \quad 1$$

For thermal effects, relevant from 100 kHz, specific energy absorption rates and power densities should be added according to:

$$\sum_{i=100kHz}^{10GHz} \frac{SAR_i}{SAR_L} + \sum_{i>10GHz}^{300GHz} \frac{S_i}{S_L} \quad 1$$

where
J_i is the current density at frequency I;
$J_{L,I}$ is the current density basic restriction at frequency I as given in Table 1;
SAR_i is the SAR caused by exposure at frequency I;
SAR_L is the SAR basic restriction given in Table 1;
S_i is the power density at frequency I;
S_L is the power density basic restriction given in Table 1.

Reference levels

For application of the basic restrictions, the following criteria regarding reference levels of field strengths should be applied.

For induced current densities and electrical stimulation effects, relevant up to 10 MHZ, the following two requirements should be applied to the field levels:

$$\sum_{i=1Hz}^{1MHz} \frac{E_i}{E_{L,i}} + \sum_{i>1MHz}^{10MHz} \frac{E_i}{a} \quad 1$$

and

$$\sum_{j=1Hz}^{150kHz} \frac{H_j}{H_{L,j}} + \sum_{j>150kHz}^{10MHz} \frac{H_j}{b} \quad 1$$

where
E_i is the electric field strength at frequency I;
$E_{L,I}$ is the electric field strength reference level from Table 2;
H_j is the magnetic field strength at frequency j;
$H_{L,j}$ is the magnetic field strength reference level from Table 2;
a is 87 V/m and b is 5 A/m (6.25 µT).
Compared to the ICNIRP guidelines([1]) which deal with both occupational and general public exposure, cutoff points in the summations correspond to exposure conditions for members of the public.

The use of the constant values (a and b) above 1 MHZ for the electric field and above 150 kHz for the magnetic field is due to the fact that the summation is based on induced current densities, and should not be mixed with thermal effect circumstances. The latter forms the basis for $E_{L,I}$ and $H_{L,j}$ above 1 MHZ and 150 kHz respectively, found in Table 2.or thermal effect circumstances, relevant from 100 kHz, the following two requirements should be applied to the field levels:

$$\sum_{i=100kHz}^{1MHz} \left(\frac{E_i}{c}\right)^2 + \sum_{i>1MHz}^{300GHz} \left(\frac{E_i}{E_{L,i}}\right)^2 \quad 1$$

and

[1] International Commission on Non-Ionising Radiation Protection. Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). Health Phys.; in press

$$\sum_{j=100kHz}^{150kHz} \left(\frac{H_j}{d}\right)^2 + \sum_{j>150kHz}^{300GHz} \left(\frac{H_j}{H_{L,j}}\right)^2 \quad 1$$

where
E_j is the electric field strength at frequency I;
$E_{L,\ I}$ is the electric field reference level from Table 2;
H_j is the magnetic field strength at frequency j;
$H_{L,\ j}$ is the magnetic field reference level derived from Tables 2;
c is $87/f^{1/2}$ V/m and d 0.73/f A/m.

Again, compared to the ICNIRP guidelines some cutoff points have been adjusted for public exposure only.

For limb current and contact current, respectively, the following requirements should be applied:

$$\sum_{k=10\,MHz}^{110\,MHz} \left(\frac{I_k}{I_{L,k}}\right)^2 \quad 1 \qquad \sum_{n=1\,Hz}^{110\,MHz} \frac{I_n}{I_{C,n}} \quad 1$$

where
I_k is the limb current component at frequency Member States;
$I_{L,\ Member\ States}$ is the reference level for limb current, 45 mA;
I_n is the contact current component at frequency n;
$I_{C,n}$ is the reference level for contact current at frequency n (see Table 3).

The above summation formulae assume worst-case phase conditions among the fields from the multiple sources. As a result, typical exposure situations may in practice result in less restrictive exposure levels than indicated by the above formulae for the reference levels.

(Amendment 16)
ANNEX IV

Amendments by Parliament

Deleted

DRAFT LEGISLATIVE RESOLUTION

Legislative resolution embodying Parliament's opinion on the proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz (COM(98)0268 - C4-0427/98 - 98/0166(CNS))

(Consultation procedure: first reading)

The European Parliament,

- having regard to the Commission proposal to the Council, COM(98)0268 - 98/0166(CNS)([1]),

- having been consulted by the Council pursuant to Article 129 of the EC Treaty (C4-0427/98),

- having regard to Rule 58 of its Rules of Procedure,

- having regard to the report of the Committee on the Environment, Public Health and Consumer Protection and the opinion of the Committee on Research, Technological Development and Energy (A4-0000/98),

1. Approves the Commission proposal, subject to Parliament's amendments;

2. Asks to be consulted again should the Council intend to make substantial modifications to the Commission proposal;

3. Instructs its President to forward this opinion to the Council and Commission.

([1]) OJ C

B
EXPLANATORY STATEMENT

1. Introduction

Electromagnetic fields (EMFs) have been in the news for many years now - particularly since 1979 when Nancy Wertheimer carried out an epidemiological study on 344 children who had died of cancer in Denver county, Colorado - and people exposed to sources of electrical, magnetic and electromagnetic fields are extremely concerned about their possible effects. It has now been established that such sources are to be found not only outside people's houses (electricity transmission lines, radar, television transmitters, etc.), but also inside, where such fields are also generated by electrical appliances such as microwave ovens, hair dryers, electric razors, television sets, visual display units (VDUs) and cellular phones.

It is precisely for the above reasons that, in response to a motion for a resolution tabled by Mr Vernier, Mr Santos and Mr Pimenta, Parliament has already considered a report on the matter by Mr Paul Lannoye and, on 5 May 1994, adopted a resolution on combating the harmful effects of non-ionising radiation. This resolution covered both low-frequency sources (electricity transmission lines) and high-frequency sources (electrical appliances, VDUs, communication systems, etc.) and called on the Commission to propose measures, including regulations and standards, to limit the exposure of workers and the public to non-ionising electromagnetic radiation. It also called for the revision of Directives 90/220/EEC and 92/75/EEC, on the health and safety of workers exposed to VDUs and the labelling of household appliances, respectively. In response to that resolution, on 11 June 1998 the Commission submitted a proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz.

2. The Commission proposal

In addition to listing the various sources and types of electromagnetic fields and outlining the provisions taken at national and Community level, the proposal for a recommendation and the opinion of the Scientific Committee, which was consulted by DG XXIV, focus mainly on assessing the effects which EMFs have on health, which may be considered from a standpoint of both field frequency and the type of effect produced (thermal, non-thermal, acute or long-term).

<u>1 - Thermal effects</u>

These are acute effects which are easily measurable on exposure to high-frequency EMFs. The most common effect is heating, which occurs when cellular phones are used for long periods. Tissues become heated as a result of the action of electromagnetic waves on electrically-charged molecules, and this process therefore depends on the type of tissues through which the waves travel. These are the only effects about which researchers have no doubts and for which DG XXIV's Scientific Committee proposed, at its meeting of 25 and 26 June 1998, that threshold values be adopted, owing to the fact that these effects were borne out by sufficiently conclusive scientific evidence. The same conclusion was reached by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and is also endorsed in the explanatory memorandum to the Commission proposal.

2 - Non-thermal effects

Both the explanatory memorandum to the proposal for a recommendation and the opinion of the Scientific Committee conclude that there is insufficient scientific evidence to establish a clear link between exposure to electromagnetic fields and long-term non-thermal effects. The recommendation therefore lays down exposure limit values only for acute thermal effects and makes any future preventive action against long-term effects, such as cancer and leukaemia (particularly among children) and alterations to the workings of the nervous, endocrine and immune systems and the production of metatonin and cellular activity, dependent on the production of more convincing scientific evidence.

3. Scientific research into the biological and health effects of electromagnetic fields

A broad survey of the findings of research into the biological and health effects of non-ionising radiation has already been submitted to Parliament in the Lannoye report, which I feel can be taken as read by Parliament. That report states that 'all these results undoubtedly help to provide a reliable scientific basis on which the decision-makers must rely in defining standards and regulations'. It also points out that even if the mechanisms causing biological injury have not been clearly elucidated, we have today sufficient information to adopt the standards and regulations on the basis of two guiding principles:

1. the precautionary principle, which states that, in the event of doubt, risks should be avoided, inter alia by adopting the zero option;

2. the World Health Organisation's ALARA (As Low As Reasonably Achievable) principle, under which exposure to radiation must be as low as reasonably possible, which excludes avoidable exposure to radiation.

Since 1994 the views set out in the Lannoye report have been endorsed by authoritative, well-publicised scientific studies which, however, appear to have been ignored both by the author of the proposal for a recommendation and by the experts on DG XIV's Scientific Committee (as is apparent from the bibliography which appears in the committee's opinion).

No mention is made of the effects of low-frequency EMFs (generated by electricity transmission lines) on cell membrane receptors, which pass on into the cell itself and trigger off enzymatic activity and the production of chemical messages which can activate genetic transcription. The relevant data are, nonetheless, to be found both in the conclusions of the European Community symposium on 'Electromagnetic transmissions: the latest scientific evidence, potential threats and strategies to reduce risk' held in London on 27 October 1994 and in the collective work published by Springer Verlag in 1995 under the title 'On the nature of electromagnetic field interactions with biological systems' (edited by A. H. Frey).

These effects are of fundamental importance in understanding exactly how EMFs may be involved in the process of carcinogenesis, which is considered to involve two stages: initiation, when the initial genetic damage occurs (to DNA) and promotion of the proliferation of cancerous cells.

Normally, the agents involved in the process of initiation (ionising radiation, alkylating agents, etc.) are not active in the subsequent promotion stage, which is triggered by agents which may

either interact with membrane receptors or inhibit natural mechanisms designed to eliminate cancerous cells (for example, the immune system).

A large number of laboratory studies indicate that EMFs are instrumental in the promotion of tumours (see inter alia the research by W. Loescher and others, referred to in the Scientific Committee's opinion, which concludes that there is limited evidence from laboratory studies in support of the theory that EMFs promote tumours).

Furthermore, research has shown that 50 Hz EMFs have the effect of depressing the immune system and reducing melatonin secretion, which are of vital importance in understanding how EMFs might promote tumours. In this connection, the work carried out by Liburdy (which is described in the aforementioned book edited by Frey) is of particular interest, in that it demonstrates that melatonin continues to have an oncostatic effect at an exposure level of 0.2 micro tesla, while that effect is blocked at 1.2 micro tesla.

These 'in vitro' and 'in vivo' studies provide us with a better understanding of the findings of epidemiological research. The research conducted by Maria Feychting of the Karoliska Institut in Stockholm, is of particular interest in this connection, in that it points to a link between EMFs and child leukaemia, thus backing up similar findings in other parts of the world, and, more recently, between EMFs generated by electricity transmission lines and breast cancer.

Other research work has highlighted a link between EMFs and nervous depression, which may be caused by an imbalance in the calcium ions in nerve cells - an effect which has been identified 'in vitro' in cells exposed to EMFs.

All such research indicates that risks start appearing on chronic exposure (for example, eight hours per day) to EMFs at levels of above 0.3 micro tesla. In this connection, it might be useful to analyse the report which M. Linet published for the US National Cancer Institute (NCI) on 3 July 1997, which has sometimes been used as evidence to back up the claim that there is no relationship between child leukaemia and electricity transmission lines. In actual fact, the report excludes only one type of child leukaemia, while in general demonstrating that at 0.2 micro tesla there is an increase of 52%, which is insignificant, but which becomes more significant at 0.3 micro tesla (72%) and extremely significant between 0.4 and 0.5 micro tesla (600%).

Many of the effects of exposure to low-frequency EMFs which have been described have recently also been found to be caused by high-frequency EMFs, such as those generated by communication systems, cellular phones and many household appliances (see the book by R. Santini entitled 'Telephones cellulaires: Danger?', published by M. Pietteur in 1998, which contains an extensive bibliography).

4. Conclusions

The conclusions reached by the Commission and the committee of experts are clearly at odds with a large number of scientific publications, which have apparently been ignored. While realising the need for due caution in this matter, the rapporteur feels that attention should be drawn to the recent report by the US National Institute for Environmental Health Sciences (NIEHS), quoted in the British Medical Journal of 4 July 1998, which states that EMFs can be carcinogenic, even though the risk is perhaps not very high.

It is obvious from a very large number of research findings that one cannot dismiss the oncogenic risk nor the various biological effects. Therefore, as was already stated in the Lannoye report, it is necessary to apply the precautionary principle and the ALARA principle.

Rather than doing so, however, the Commission proposal goes so far as to state that 'there is no convincing experimental evidence that EMF electromagnetic fields cause genetic damage and it is therefore extremely unlikely that they could have any effect on the initiation of cancer', totally ignores the possibility of them having a tumour-promoting effect, and concludes that 'the epidemiological data are insufficient to allow the recommendation of an exposure limit'. The provisions of the Commission proposal are therefore less strict than the legislation already existing in various Member States, such as Sweden([1]), the Grand Duchy of Luxembourg([1]) and Italy([1]).

Your rapporteur takes the opposite view that, in compliance with the precautionary principle (Article 130r of the Treaty), the recommendation should include exposure limits for non-thermal effects which may become apparent in the long term.

In view of the above and taking account of the most recent research findings and of national and regional standards which have already been adopted, the rapporteur proposes that the Commission text be amended to lay down a maximum permissible exposure level, to be achieved over a ten-year period, of a magnetic flux density of 0.25 micro tesla and an electric field strength of 25 V/m in the 1 Hz - 2 KHz frequency range and, respectively, 0.03 micro tesla and 2.5 V/m in the 2 KHz - 400 KHz frequency range and, lastly, 0.01 micro tesla and 1 V/m in the 400 KHz - 300 GHz frequency range.

He also proposes that the Commission be called upon to submit by 31 December 1999 a proposal for the amendment of Directives 90/270/EEC, 73/270/EEC and 92/75/EEC, with a view to protecting the health and ensuring the safety of workers exposed to electromagnetic fields from VDUs, establishing safety standards for electrical equipment likely to produce electromagnetic fields and labelling such products so as to provide consumer with information on the fields generated thereby as a function of distance and the type of use to which they are put. Lastly, the Member States should lay down minimum safety distances from public buildings, housing, and workplaces for the siting of electricity lines, radar and broadcasting and re-broadcasting transmitters, including cellular phone repeaters.

([1]) The MPR/TCO 92 standard for visual display units.

([2]) Internal Ministry circular No 1644 26/94.

([3]) Decree No 381 of 10 September 1998, published in the Official Journal of 4 November 1998, 'Regulation laying down standards for the determination of radio frequency ceilings compatible with human health', which will enter into force on 2 January 1999, provides for an exposure limit of 6V/m for broadcast and cellular phone transmitters in respect of buildings in which people live or work for more than four hours per day.

DARC Standards Surveillance Group
Hans-Joachim Brandt, DJ1ZB
Eichenweg 7
D-84160 Frontenhausen
Tel/FAX: ++49-8732-1565
email: hajo.brandt.dj1zb@t-online.de

January 9th, 1999

Living with 1 V/m at RF?

As outlined in the EUROCOM Newsletter 08.01.99, a proposal on the limitation of exposure of the general public to electromagnetic fields (0 Hz - 300 Ghz) has been presented by Directorate General V of the European Commission. In contrast to an original proposal of the European Council based on ICNIRP, much lower limits are presented in a draft report by Gianni Tamino, to be implemented until the year 2008. In order to show some consequences, the following study will try to examine just two areas of the electromagnetic spectrum, 50 Hz power lines and RF applications.

Comparison of limits

The table below has been set up to allow a quick comparison of the limits of the ICNIRP and the Tamino proposals in the fields of interest as stated above.

Table 1: Field strengths comparison

Frequency	ICNIRP	Tamino	ICNIRP	Tamino
50 Hz	5000 V/m	25 V/m	100 µT	0,25 µT
RF Range 400 kHz to 300 GHz	87 V/m decreasing to 28 V/m then again raising to 61 V/m	1 V/m	2.3 µT decreasing to 0.092 µT then again raising to 0.2 µT	0.01 µT

Consequences for the 50 Hz power lines

The Tamino proposal wants to achieve a reduction of the electric fieldstrength by a factor of 200 and of the magnetic flux by a factor of 400. The author is no expert in this field but simply assumes that it will be impossible to restructure the european 50 Hz power line net and its environment within 10 years to meet these figures, even if they were highly desirable.

RF Applications

The simplest relation between the total power P transmitted by an aerial (including any gain if radiation is directive) and the resulting electromagnetic field strength E in a distrance d is given by

$$E = \frac{\sqrt{30 \bullet P}}{d}$$

This formula is independant of frequency. Neglecting the extension of the aerial the necessary safety distance can be calculated to maintain a fieldstrength assumed to be safe, such as 1 V/m in this case. The results are given in table 2.

Table 2: Safety distance versus transmitter power

P	d
10 mW	0.55 m
100 mW	1.75 m
1 W	5.5 m
5 W	12.3 m
10 W	17.4 m
100 W	55 m
1 kW	174 m
10 kW	548 m
100 kW	1732 m

Some consequences

Present cordless telephones employ a transmitting power of just 10 mW. To obey the rules of the Tamino draft, they will have to be kept half a meter away from the user.

The popular GSM handies use a maximum of 1 to 2 watts. The new rules would ask for a safety distance of more than 5 meters.

Those radio amateurs of the QRP movement who already try to employ minimum power, 5 watts output maximum, have to watch that nobody will approach them to less than 12 meters. About the same saftey distance will apply for CBers.

The average radio amateur transmitter of 100 watts output will need a safety area with a radius of at least 55 meters, even more when employing directive aerials. Radio amateurs using maximum legal power, local FM and Television radio stations will need hundreds of meters of safety distance, and the tower of a 100 kW AM medium or shortwave radio transmitter must be almost 2 kilometers away from public areas.

Designing a 2008 Tamino Handy

The above formula can also be used to determine the maximum transmitter power which should be safe for human beings close to the ear. At a distance of 10 cm the result will be 330 µW, at 5 cm 83 µW. With such low power, the cells of a GSM system would have to be enormously reduced in size and a correspondingly high number of additional low power base transmitters would have to be installed in the country. To achieve total coverage, those base stations should be erected even in unpopulated areas where at present no mains power is available. It must also be questioned whether this low handy power would be sufficient for participation in the world wide satellite telephone systems planned by U.S. companies for the near future. Europe would possibly be cut off from these modern systems.

Some winners?

In spite of all these obvious drawbacks we should not exclude the possibility that some enterprises may believe to profit from such low fieldstrength limits. After the full implementation of the EMC Directive 89/336/EEC in 1996 the standards level of immunity to electromagnetic fields for electronic equipment in the European Community is 3 V/m. It has been observed, however, that some industries still regard this level unnecessarily high and difficult to achieve, and several attempts have been made to reduce this level to 1 V/m or even 0.4 V/m. On the other hand, the automotive industry, rather new in the field of electronics, has soon learned to cope with fieldstrengths of 20 V/m and up to even 200 V/m, to protect motor electronic components in the vicinity of strong broadcast transmitters and to provide an excess of safety for the users of their products. Therefore it must be stressed that sufficient EMC knowledge is available, even for active medical implants, and that an immunity of 3 V/m really is a minimum requirement in our modern world, a value being exceeded by many quality products. Products of lower immunity were unable to be exported outside Europe. We just have to realize that higher fieldstrenght limits have been adopted there.

Outlook

It is true that in recent decades the use of electricity and of electromagnetic waves has increased tremendously and has given reason for concern. Therefore it is fully justified that many countries have introduced schemes to control the exposure of the general public to electromagnetic fields. Several countries have followed the United States of America in introducing the IEEE standard C95.1, which is even used in Europe by some military forces. Work on an european prestandard ENV 50166 for the general public has already resulted in somewhat lower limits below 30 Mhz compared to IEEE 95.1. But even these lower limits have been further reduced below 10 MHz in the latest ICNIRP proposal, which now has a true chance to be adopted throughout Europe.

Adopting much lower limits, however, such as recommended by the Tamino proposal, would have the adverse effect of compromising the european community and industry in a number of issues. Then, in spite of having the EURO, Europe would not be able to compete with modern industrial countries like the United States and those of the Far East. It must also be emphasized that in recent years not only the application of electricity and electromagnetic waves have increased, but also the life expectancy of human beings, thanks to our modern health system which is heavily depending on the availability of cheap electric power and of modern

telecommunication and information systems. Reducing the basics of these systems would have the indirect consequence of reducing life expectancy again, thus achieving the opposite of what the Tamino proposal pretends to strive for.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
18.01.1999

Tamino Report on EMF

As a result of the EUROCOM Newsletter 08.01.1999, several emails were collected.

Up till now, we took notice of the following action :

- DARC is planning a meeting with the german MEP of the ENVI Committee
- SSA, EDR and VERON alerted their authorities as well as industry and operators
- Christian, OZ8CY, Chairman of the EMC WG, forwarded a letter adressed by the *Netherlands Society for Radiological Protection (Non-Ionizing section)* to the European Parliament (see attachment).
- Kristen J Cadman MA(Cantab.) C.Eng.MIEE, asked for information and was informed.
- No answer from John Ryan (DG V) to our request for a meeting. Will try again.

Things are on the move. We are looking forward to your contribution.

Gaston Bertels, on4wf
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
02.02.1999

Council Recommendation on the exposure to electromagnetic fields

1. Tamino Report - Reminder

In our Newsletter of 08.01.1999 we announced the proposal of a Council Recommandation Com(1998) 268 on the limitation of exposure of the general public to electromagnetic fields (0 Hz - 300 GHz). The proposal was referred to the parliamentary ENVI Committee and we circulated the draft Report of M. Gianni Tamino, MEP.

This Draft Report will be voted upon by the ENVI Committee on 18/02/1999 and by the Parliament on 08/03/1999.

The Council Recommendation is expected to be adopted in June 1999.

Our Newsletter of 18.01.1999 reported the first steps undertaken by several instances and authorities on this important issue.

2. Events

- **DARC** wrote to the german MEP and appended a very solid case against the drafted Tamino Report.
  Ha-Jo, DJ1ZB is translating this document into English. I will circulate it as soon as possible.
  Meanwhile, I translated the document into French. This French version is appended.

- **RSGB** alerted their authorities, Home Office and institutional operators.

  Peter, G3RZP alerted the Chairman of the Association of Liberal Democrat Engineers and Scientists (G4OOA). He will be briefing the UK Liberal Democrat MEPs on the subject.

  We informed Kristen J Cadman, C.Eng.MIEE, an EMC specialist who asked for details.

- **URE** alerted Sr Fernando Fernández Martin, MEP (EA8AK).

  EA8AK is a DX veteran, has been Member of the Board of URE for two terms (1977-1979 and 1982-1983) and became President of URE (1979). He received the "Botón de Oro de la URE" in December 1997. He lives in Tenerife.

  Sr Fernández contacted us and offered his assistance to inform the MEPs of the major political groups in the EP. He suggested that we prepare amendments to the Tamino Report to be presented when the Report will be debated upon in plenary by the EP. Sr Fernández has a permanent secretariat in the EP in Brussels, where he comes very often. His secretary is very helpfull to us, providing assistance and information.

- **VERON** alerted their authorities.

  Tom Sprenger, PA3AVV wrote a well documented article to be published in their magazine.

- **ETSI ERM_TG6** was alerted by ON4WF and DJ1ZB and several members representing major European authorities, telecom operators and leading manufacturers responded to this call for attention.

In the last meeting of TG6 in Sophia Antipolis, DJ1ZB further informed the participants and it was suggested that TG6 as such should also take action.

3. Amendments to the Tamino Report

Meanwhile, several members of the ENVI Committee have presented amendments to the draft Report by Mr Tamino. These will be discussed when the Committee meets on February 18, 1999 to finalize the Tamino Report.

Sr Fernández's secretary was intrumental in providing us with a copy of these amendments which we received yesterday. This document (Amendments 17-26) is appended.

At the first glance, these amendments tend to introduce an harmonization on the European level with common reference levels to be elaborated (see Amendment 25).

Moreover, research on bioelectromagnetics would be stimulated (see Amendment 24).

No modification of Amendment 15 (1 V/m) has been presented by the Committee members.

4. Further action

EUROCOM Chairman will meet Sr Ferrnández tomorrow in the European Parliament, Brussels.

Our goal is to develop a strategy :

- inform the MEPs of the major political groups on very issues of the Tamino Report they will have to vote upon in plenary, March 8,1999. Circulating the DARC document will be very usefull.
- eventually prepare amendments to the Report to be presented to the plenary.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Recommandation du Conseil Européen relative à la limitation de l'exposition du public aux champs électromagnétiques

Commentaires concernant le Rapport de la Commission de l'Environnement, de la Santé publique et de la Protection des Consommateurs du Parlement Européen, Rapporteur Gianni Tamino

En résumé, la Commission parlementaire propose de réduire de façon draconienne, d'ici l'an 2008, les valeurs limites d'exposition du public aux champs électromagnétiques. Dans tout le territoire de l'Union européenne, ne serait toléré qu'un champ électrique de 1V/m, avec des limites légèrement supéreures pour les caténaires de la traction électrique et le courant domestique par exemple. Une telle mesure affecterait profondément toute l'économie européenne et mettrait en péril des secteurs entiers, en particulier celui des télécommunications et, partant, toute la vie sociale.

Les limitations proposées dans le Rapport sont fondées sur d'hypothétiques effets non thermiques des champs électromagnétiques, qu'il faudrait prendre en compte en vertu du principe de risque minimum.

Le projet de Recommandation du Conseil, présenté par la Commission européenne, propose au contraire des restrictions de base et des niveaux de reférence en conformité avec l'avis émis par le Comité international des rayonnements non ionisants (ICNIRP).

La réduction des limites d'exposition, proposées dans le Rapport de Monsieur Tamino, appelle les objections suivantes :

1. Le Rapport se fonde sur certains publications, relatives à d'hypothétiques effets non thermiques des champs électromagnétiques, qui à ce jour n'ont pas fait l'objet de recherches suffisantes et ne sont pas fondées sur des données scientifiques ou médicales reconnues. En outre, ces "effets", que certaines publications considèrent comme des possibilités, sont présentés sous un éclairage tel, qu'il donne l'impression qu'il s'agit de risques réels. Les limites d'exposition de l'Annexe 2 (nouvelle) du rapport ont été fixées de manière totalement arbitraire, sans justification aucune.

   La proposition de la Commission européenne, par contre, se fonde sur des restrictions de base et des niveaux de référence établis par des professionnels de renom international dans le domaine des effets des champs électromagnétiques. Les recommandations proposées en matière de restrictions de base et de niveaux de référence s'appuient sur l'avis du Comité international des rayonnements non ionisants (ICNIRP) et sur les connaissances scientifiques les plus récentes. Elles couvrent par conséquent les effets prouvés des champs électromagnétiques sur la santé (effets thermiques = réchauffement des tissus). Le Comité international pour la protection contre les rayonnements non ionisants (ICNIRP), fondé en 1992, est composé de scientifiques indépendants du monde entier et collabore étroitement avec l'Organisation mondiale de la Sante (OMS). La plupart des pays européens acceptent et recommandent les restrictions proposées par l'ICNIRP. Dans le monde entier, les restrictions nationales ont tendance à s'aligner sur les recommandations de l'ICNIRP, y compris celles à caractère préventif.

   Il faut saluer l'effort de protection de la santé publique à l'echelle européenne, tel que le propose la Commission européenneen préconisant les restrictions ICNIRP, fondées sur des critères scientifiques. Des normes d'exposition de la population européenne plus draconiennes ne se justifient pas et sont incompatibles avec les objectifs de la Communauté Européenne, fixés à l'article 3 du Traité CE – création d'un marché commun et developpement de l'économie.

2. Le Rapport fonde la réduction des valeurs limites sur le principe de prévention et sur le principe ALARA (**A**s **L**ow **A**s **R**easonably **A**chievable) de l'Organisation mondiale de la Santé, mais ce raisonnement est fallacieux.

L'article 130 r du Traité CE n'est nullement d'application en l'occurrence, pas même par analogie. Il concerne la politique générale de protection de l'environnement de la Communauté.

En l'absence de données scientifiques et médicales sur les effets non thermiques des rayonnements électromagnétiques sur la santé humaine, il ne peut être question d'un doute qui justifierait l'application du principe de prudence. La prise de précautions nécessite l'existence d'une menace. La notion de danger se définit en termes de probabilité de la survenance d'un dommage significatif dans un délai raisonnable. La seule possibilité que le cours normal des choses conduise à un dommage ne suffit pas en droit.

Par ailleurs, le projet de la Commission européenne envisage des mesures de prudence adéquates. C'est pourquoi il recommande les valeurs limites ICNIRP. On peut lire dans l'exposé des motifs : „L'incertitude des données scientifiques, les variations de la sensibilité individuelle et la diversité des situations concrètes d'exposition imposent de recourir à des coefficients de sécurité pour dériver les restrictions d'exposition.“.

Le principe ALARA de l' OMS est également pris en compte, étant donné que les valeurs limites ICNIRP ont été fixées en collaboration étroite avec l' OMS. L'application de ce principe implique d'ailleurs l'appel au bon sens. Compte tenu des conséquences dramatiques dans le domaine des télécommunications, de la croissance, de la concurrence et de l'emploi dans l'économie européenne, il ne peut être question de réduire davantage les limites d'exposition. Nous y reviendrons.

En matière de principes de prudence, il faut savoir aussi que les valeurs limites ICNIRP tiennent également compte du fait que le public perçoit souvent les risques pour la santé, y compris ceux résultant de l'exposition aux champs élecromagnétiques, d'une manière totalement différente des données scientifiques réelles.

3. Les amendements proposés par la Commission de l'Environnement du Parlement européen dans le rapport Tamino appellent des mesures législatives de la part du Conseil. Il convient de rappeler ici que la santé publique, dont relève la protection contre les rayonnements non ionisants, n'est pas de la compétence exclusive de la Communauté.

   Selon l'article 129 du Traité CE, la Communauté apporte sa contribution à l'amélioration du niveau de santé en encourageant la collaboration entre les Etats Membres et, au besoin, en soutenant leurs efforts. Pour concrétiser les objectifs de cet article, le Conseil prend des mesures d'encouragement à l'exclusion de toute mesure d'harmonisation, ou émet, sur proposition de la Commission, des recommandations. Par contre, il n'est pas prévu de Directives dans le domaine de la santé. En vertu de l'article 3 b du Traité, la portée des mesures prises par la Communauté ne peut dépasser la réalisation des objectifs du Traité. Il convient également de respecter le principe de subsidiarité dans les domaines qui ne sont pas de la compétence exclusive de la communauté. Il en résulte que la Communauté ne doit intervenir que dans la mesure où les objectifs envisagés ne peuvent être réalisés d'une manière satisfaisante au niveau des Etats Membres et qu'en raison de leur ampleur ou de leur effets il est plus approprié de les traiter au niveau de la Communauté.

   Par l'application des valeurs limites ICNIRP, fondées sur des données scientifiques reconnues, la Recommandation proposée par la Commission européennne assure un niveau adéquat de protection de la santé dans la Communauté. Un renforcement des restrictions au niveau communautaire n'est pas indiqué, étant donné qu'il appartient à chaque Etat Membre de développer, s'il le souhaite, son propre niveau de protection de la santé.

4. Des valeurs limites beaucoup plus strictes auraient un effet néfaste sur l'économie européenne. L' Europe ne serait plus en mesure de concurrencer les autres nations industrialisées comme les Etats Unis et les états de l'Extrême Orient.

   Voici quelques exemples qui illustrent ces conséquences désastreuses:

Un téléphone sans fil développe une puissance d'environ 10 mW. Pour satisfaire aux exigences du Rapport de la Commission de l'Environnement du PE, il faudrait tenir ce téléphone à 50 cm de l'oreille.

Les appareils GSM ont une puissance de l'ordre de 1 à 2 Watt. Les normes proposées imposeraient une distance de sécurité de l'ordre de 5 mètres. S'il fallait réduire la puissance de sortie conformément aux normes du Rapport du Comité de l'Environnement pour la protection de la personne humaine, la structure cellulaire

des systèmes de téléphonie GSM et des réseaux de mobilophonie devrait être si serrée, qu'il faudrait construire un nombre considérable de stations de base de petite puissance et ce à l'echelle européenne. Pour assurer le fonctionnement du réseau, il faudrait installer les stations de base en des endroits inhabités où le courant électrique fait défaut. La question se pose également de savoir si un appareil portatif de minime puissance permettrait de participer au système de téléphonie mondial par satellites que des firmes américaines vont implanter dans un proche avenir. Il en irait de même des projets européens d'un service de télécommunications mobiles universel (UMTS). En toute probabilité, l' Europe serait privée de ces systèmes de l'avenir.

Les émetteurs de télévision nécessiteraient des distances de sécurité de plusieurs centaines de mètres. Le mât d'émission d'une station de radiodiffusion en ondes moyennes ou en ondes courtes de 100 kW devrait se trouver à 2 km de toute zone habitée ou accessible au public, à défaut de quoi il faudrait l'arrêter. De très nombreuses stations seraient touchées.

Malgré les limites plus élevées prévues pour le courant de traction, aucun être humain ne pourrait plus se trouver dans les gares des lignes électrifiées, ni même dans les trains circulant sur des lignes électrifiées. Même dans les trains à génératrices Diesel circulant sur des lignes secondaires non électrifiées, on peut s'attendre à trouver des champs plus élevés que ceux autorisés par le Rapport, champs engendrés par les installations électriques du convoi (éclairage, force motrice, etc.).

Les champs électriques engendrés par les appareils électroménagers interdiraient l'emploi d'appareils d'usage courant, tels que le rasoir électrique, le sèche-cheveux, le radiateur électrique, le four à micro-ondes, le PC, les jouets tels que les trains électriques et les téléviseurs. Sans même parler de la liberté de mouvement dans sa propre habitation où il y aurait lieu de tenir compte des champs produits par les conduites électriques.

De même, les lignes à haute tension, qui couvrent des milliers de kilomètres et passent au dessus ou à proximité de régions à forte densité de population, devraient disparaître pour être enterrées.

Pour satisfaire aux normes il faudrait également procéder à des mesures pour déterminer les tronçons de rues dans les agglomérations urbaines qui devraient être interdits au public en raison de la présence de cabines à haute tension ou d'autres sources tels que les caténaires des tramways.

Les mesures à prendre pour satisfaire aux normes proposées dans le Rapport sont d'une ampleur telle qu'il est difficile de s'en faire une idée, sans même savoir si des solutions sont techniquement possibles. Dans ces conditions, imposer un délai tel que l'an 2008, sans d'ailleurs aucune justification, paraît tout à fait irréaliste.

Il faudrait par exemple entourer les gares d'une sorte de cage de Faraday et transformer l'intérieur de pratiquement tous les wagons des chemins de fer et des tramways. Il est impossible de chiffrer le coût d'une telle opération, même de manière approximative.

Il est inutile d'allonger la liste des exemples. Les conséquences décrites ci-dessus le sont d'ailleurs sous réserve de confirmation par des mesures précises. Elles résultent cependant d'estimations faites en fonction des distances, courants, tensions et frequences connues.

Le Rapport aurait dû évaluer l'ordre de grandeur des conséquences prévisibles. Il aurait fallu également examiner le problème de l'augmentation des coûts de production et d'infrastructure par rapport à ceux des pays non concernés et évaluer l'impact en termes de pertes d'emplois et de disparition d'entreprises.

Il aurait fallu tenir compte aussi de la création d'emplois nouveaux pour la réalisation des mesures de protection et la création de nouveaux produits (biens d'investissement, biens de consommation), sans négliger l'aspect concurrentiel des marchés internationaux. En outre, il aurait fallu estimer le bénéfice sanitaire pour la population en fonction de la disparition d'un risque dont l'existence serait réellement prouvé.

En raison de ces omissions, le Rapport n'est pas réaliste, mais incomplet et immature. Il convient dès lors de le renvoyer, à charge pour ses auteurs de prouver la nécessité d'imposer des normes de sécurité différentes de celles de l' ICNIRP et de procéder à une estimation de l'impact des mesures préconisées sur les plans technique, économique et social en termes de pertes et profits.

EUROPEAN PARLIAMENT

COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND CONSUMER PROTECTION

19 January 1999 PE 228.570/17-26

AMENDMENTS 17-26

DRAFT REPORT by Mr Tamino (PE 228.570)
LIMITATION OF EXPOSURE OF THE GENERAL PUBLIC
TO ELECTROMAGNETIC FIELDS 0 Hz - 300 GHz

Proposal for a Council Recommendation COM(98)0268 - C4-0427/98 - 98/0166(CNS)

Text proposed by the Commission	Amendments
(Amendment 17 by the following Members: Fitzsimons, Collins G., Crowley) Recital 7	
Whereas there is a need to establish a Community framework for the protection of the public with regard to electromagnetic fields by means of recommendations to Member States;	Whereas there is a need to establish a uniform Community framework with regard to exposure to electromagnetic fields, with an objective of protection of the public;
Or. en	
(Amendment 18 by Mr Eisma) Recital 8	
Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; whereas advice on this matter has been given by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee.	Whereas, in accordance with the precautionary principle, this framework must eliminate any possible public health hazard and should comprise stringent basic restrictions and reference levels on exposure to electromagnetic fields; whereas advice on this matter has been given by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee.
Or. nl	

(Amendment 19 by Mr Whitehead)
Recital 8

Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; whereas advice on this matter has been given by the International Commission on Non-Ionising Radiation (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee.	Whereas this framework, which can draw on the large body of scientific documentation which already exists, must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields and such advice should be regularly reviewed and re-assessed in the light of increased patterns of usage of devices which may increase exposure to electromagnetic fields.

Or. en

(Amendment 20 by the following Members: Fitzsimons, Collins G., Crowley)
Recital 8

Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; whereas advice on this matter has been given by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee;	Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; whereas, next to the advice given by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), two main research projects are still on-going at European and international level, namely the COST 244 bis on „biomedical effects of electromagnetic fields" and the EMF project from the World Health Organisation;

Or. en

(Amendment 21 by the following Members: Fitzsimons, Collins G., Crowley)
Recital 12a (new)

	Whereas there is no uniform measurement method at European level for product compliance; whereas there is a need to prevent new technical barriers to trade;

Or. en

(Amendment 22 by Mr Whitehead)
Recital 16

Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection; whereas these recommendations should be reviewed in particular in the light of guidance by competent international organisations such as the International Commission of Non-Ionising Radiation Protection;	Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection and provide for regular scrutiny and review with assessments made regularly available to the European Parliament;

Or. en

(Amendment 23 by Mr Whitehead)
RECOMMENDATION III

Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II:	Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II shall set down the recommended safety distances for use, such recommendations to be displayed on the product concerned, paying particular attention - because of the proximity and length of exposure involved - to mobile telephones:
a) use the reference levels given in Annex III for exposure assessment purposes to determine whether the basic restrictions are likely to be exceeded;	a) use the reference levels given in Annex III for exposure assessment purposes to determine whether the basic restrictions are likely to be exceeded;
b) evaluate situations involving sources of more than one frequency in accordance with the formulas set up in Annex IV, both in terms of basic restrictions and reference levels;	b) evaluate situations involving sources of more than one frequency in accordance with the formulas set up in Annex IV, both in terms of basic restrictions and reference levels;

Or. en

(Amendment 24 by the following Members: Fitzsimons, Collins G., Crowley)
RECOMMENDATION III

Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II:	Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II:
a) use the reference levels given in Annex III for exposure assessment purposes to determine whether the basic restrictions are likely to be exceeded;	a) encourage the elaboration of a research project in bioelectromagnetics at European level, aimed at harmonising calculation methodologies (conditions of exposure, characteristics of the sources), in order to derive reference levels on harmonised basis;
b) evaluate situations involving sources of more than one frequency in accordance with the formulas set up in Annex IV, both in terms of basic restrictions and reference levels;	b) evaluate situations involving sources of more than one frequency in accordance with the formulas set up in Annex IV, both in terms of basic restrictions and reference levels;

Or. en

(Amendment 25 by the following Members: Fitzsimons, Collins G., Crowley)
RECOMMENDATION III ba) (new)

	ba) on the basis of this methodology, invite the Commission to elaborate the common reference levels and the conditions of their application;

Or. en

(Amendment 26 by Mr Whitehead)

INVITES

the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the matters covered in this recommendation under review, with a view to its revision and updating.	the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the matters covered in this Recommendation under review, with a view to its revision and updating proposing, by 1 January 2001, a system of continuous review of devices generating electromagnetic fields which will utilise information about their greater intensity and time of usage by the public so as to protect public safety. In addition, the Commission shall produce a comprehensive comparative list of the limits applied in the Member States of the EU and for comparison, with other major countries in order to alleviate public disquiet over variations in standards applied.

Or. en

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
16.02.1999

Commission Green Paper on radio spectrum policy

1. The European Community radio spectrum policy

Radio spectrum is the backbone for a wide range of industrial activities in sectors including telecommunications, broadcasting, transport, R&D and services of general interest. It is therefore of considerable **economic importance** both in terms of market values and employment. Since many of these areas are covered by Community policies, the European Community has a substantial interest in the development of a consistent radio spectrum policy.

Technological developments, market trends and the evolution of policy / regulation - all interrelated – have a substantial impact on the availability of radio spectrum and make both the search for radio spectrum for new applications and the harmonisation of radio spectrum usage increasingly complex.

At Community level, several of the factors for change suggest that it is time to verify whether the present environment governing radio spectrum issues is suitable to preserve the European Community's interests, and to reflect the need for a Community approach to radio spectrum policy.

Therefore the European Commission (DGXIII) has issued a Green Paper on which <u>all interested parties</u> are invited to comment.

2. The Green Paper on Radio Spectrum Policy (COM (1998) 596)

The 5 major issues on which the Commission requests comments are :

- Strategic planning of the use of radio frequencies
- Harmonisation of radio spectrum allocation
- Radio spectrum assignment and licensing
- Radio equipment and standards
- The instituitional framework for radio spectrum co-ordination

The various types of radio applications (not exhaustive) are summarized in 5 sectors and activities :

- Telecommunications
- Broadcasting
- Transport
- Government
- R&D (such as Earth observation and Radio astronomy)

The European Community policies in each area are described in detail in Annex I of the document.

3. Comments

The Green Paper is a very well documented and exhaustive presentation of the goals of the Commission as far as radio spectrum issues are concerned.

Since 1994, a memory of understanding exists between the Commission and CEPT. In its role as observer in ITU/WRC and councelor to CEPT, the European Community seeks to ensure that its interests are appropriately represented in these bodies.

The European Commission apparently seeks to extend its power as a rulemaker to radio spectrum matters as a means of developping trade and industry within the Community.

The Green Paper, where asking for comments, appears as a means of gaining support and consensus from industry, organisations and regulatory authorities.

4. Public consultation

All interested parties are invited to comment on the Green Paper by sending written contributions to the Commission (until 15 April 1999) and by participating at public consultation meetings.

During the public consultation period, the Commission will organise three meetings in Brussels with the aim to initiate a wide debate on radio spectrum policy for the European Union.

- On 24 February 1999, a first public consultation meeting will be held with industry (individual companies).
- On 17 March 1999, a second public consultation meeting will take place for which **associations/representative organisations** are invited.
- On 30 March 1999, a third consultation meeting will be held with the Member States/regulatory authorities. The Member States as well as a representation of CEPT are welcome to attend the first two meetings as observer.

The Commission will report on the results of the public consultation on the Green Paper in a forthcoming Communication.

5. Action

We suggest that the EUROCOM societies carefully examine the paper.

The 46 pages document can be downloaded in Word format from the following website (in several languages) :

http://www.ispo.cec.be/infosoc/telecompolicy/en/comm-en.htm

You will see that nowhere the Amateur Radio service is mentioned. CB is cited as a a form of telephony under the heading Telecommunications (see Table 1 on page 5).

We also suggest that, in order to present the views of the Amateur Radio service on these important issues, a common position be adopted and a unique document submitted to the Commission by IARU / EUROCOM.

Appended is the agenda of the consultation meeting on 17 March in Brussels, as well as a registration form. Will you be so kind to let me know if you intend to assist.

It would be advisable to present our written contribution before the meeting, say at least a week before. This is the only way to be in a position to participate to the debate in an efficient and orderly fashion.

I am asking for input from the societies and will circulate a draft document as soon as possible.

Please, do not proscrastinate.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

PUBLIC CONSULTATION MEETINGS ON THE *GREEN PAPER ON RADIO SPECTRUM POLICY* – COM(1998)596

Date / venue

24 February 1999 (industry): Charlemagne (next to the Berlaymont building), rue de la Loi 170, 1040 Brussels

17 March 1999 (associations/representative organisations): Centre Borchette, rue Froissart 36, 1040 Brussels

AGENDA

MORNING SESSION

09h00-09h30 **Registration**

09h30-09h45 **Opening and welcome**

Mr. N. Argyris, Director, DGXIII/A: telecommunications, trans-European networks and services, and postal services

09h45-10h00 **Objectives of the Green Paper in the context of European Community policies**

Mr. R. Niepold, acting Head of Unit, DGXIII/A3: mobile and satellite communications

10h00-11h00 **The strategic planning of the use of radio spectrum**

Introduction by *Mr. J. Da Silva, Head of Unit, DGXIII/F4* followed by discussion

11h00-12h00 **Radio spectrum allocation and harmonisation**

Mr. R. Niepold followed by discussion

12h00-13h45 ***LUNCH BREAK***

AFTERNOON SESSION

14h00-15h00 **Radio spectrum assignment and licensing**

Introduction by *Mr. J.E. de Cockborne, Head of Unit, DGXIII/A1: telecommunications legislation* followed by discussion

15h00-16h00 **Radio equipment and standards**

Introduction by *Mr. M. Bogers*, DGIII **[..]** followed by discussion

16h00-17h00 **The institutional framework for radio spectrum co-ordination**

Introduction by *Mr. N. Argyris* followed by discussion

17h00 **Closure**

PUBLIC CONSULTATION MEETINGS ON THE *GREEN PAPER ON RADIO SPECTRUM POLICY*

Date / venue

24 February 1999 (industry): Charlemagne (next to the Berlaymont building), rue de la Loi 170, 1040 Brussels

17 March 1999 (associations/representative organisations): Centre Borchette, rue Froissart 36, 1040 Brussels

REGISTRATION FORM [1]

- ***I hereby register to attend the public consultation meeting on*:**

☐ **24 February 1999 (industry)**

☐ **17 March 1999 (associations/representative organisations)**

Name/function:

Company/association/representative organisation/regulatory authority/CEPT (*please specify*):

Address:

Telephone / Fax number:

E-mail/Web-site:

Signature:

PLEASE FILL IN AND RETURN BY FAX TO: Ms. ANNE JARVI, +32 2 29 68 395

[1] **The deadline for registration is three days prior to the consultation meetings (i.e. 21 February for the meeting on 24 February and 14 March for the meeting on 17 March). Please show this registration form to the security staff at the venue of the meeting.**

All language versions of the Green Paper can be downloaded from: http://www.ispo.cec.be/infosoc/telecompolicy/en/comm-en.htm.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
18.02.1999

Council Recommendation on the exposure to electromagnetic fields

1. Tamino Report voted upon by ENVI Committee

Today, 18 February 1999, the Parliamentary Committee on the Environment, Public Health and Consumer Protection (ENVI Committee) has adopted the Report (PE 228.570) of Rapporteur Gianni Tamino, MEP on the proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz (COM(1998) 268).

Some of the drafted amendments were approved, others rejected.

Adopted amendments :

Amendement 1
Amendement 2
Amendement 3
Amendement 11
Amendement 17 (modifying amendment 5)
Amendements 18 et 19 (modifying amendment 6)
Amendement 21
Amendement 22
Amendement 23
Amendement 26

The other amendments were rejected.

The draft Report was circulated as an attachment to the EUROCOM Newsletters of 08.01.1999 (amendments 1 - 16) and of 02.02.1999 (amendments 17 - 26).

2. Comments

- Amendment 15, proposing public exposure limits to be complied with by 2008 (1 V/m in the 400 kHz - 300 GHz frequency range) was **rejected**
- Amendments 17, 18, 19, 21 and 22 insist on the necessity of a uniform Community framework with regard to exposure to electromagnetic fields, refer to the advice of the ICNIRP and insist on regular scrutiny and review of progress made in scientific knowledge and technology with respect to non-ionizing radiation protection
- Amendment 23 urges the Member States to set down the recommended safety distances for use, such recommendations to be displayed on the product concerned, paying particular attention - because of the proximity and the length of exposure involved - on mobile telephones
- Amendment 26 invites the Commission to propose, by 1 January 2001, a system of continuous review of devices generating electromagnetic fields and their time of usage by the public. The Commission shall produce a comprehensive comparative list of the limits applied in the

Member States of the EU and in other major countries, in order to alleviate public disquiet over variations in standards applied.

The Report is will be submitted to the plenary of the Parliament, to be voted upon 8 March, 1999.

3. Conclusion

The Tamino Report, as adopted by the ENVI Committee, is rid of the unacceptable exposure limits introduced by amendment 15. That is good news.

Moreover, the recommendation for a uniform framework within the Community is also a positive approach of the problem.

We will take care to inform you on the further development of the Council Recommendation.

Once again, the AR societies within the EU will have to be very carefull, in the coming years, to scrutinize the attitude and the initiatives of their regulatory and legislative authorities in order to prevent undue restrictions which could result of non-scientifically based and emotional disquiet of the general public with regard to EMF.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
20.03.1999

1. Proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields : approved by the European Parliament

On 10 March 1999, the European Parliament has approved the proposal with a series of amendments. The provisional edition of the adopted amendments is appended (EP100399.rtf).

The EP insists on inviting the Member States to lay down minimum distances from public buildings, housing and workplaces for the siting of high-voltage transmission lines, radar equipment and broadcasting transmitters, including cellular phone base stations. The recommended safety distances should be displayed on the product concerned, especially mobile telephones.

The Member States should enhance knowledge about the health effects of EMF, taking into account research recommendations from the widest possible range of sources, including the research carried out by many military experts throughout the world.

Moreover, the EP wishes the Council to invite the Commission to submit a proposal for the revision of three other Directives :

90/270/EEC on the minimum safety and health requirements for work with screen equipment
73/23/EEC and 92/75/EEC on electrical equipment capable of producing EMF (Low Voltage Directive).

If the LVD were to be amended to cover voltages below 50 V, we might face another threat.

Let us remember, that the Council has now to consider the amendments introduced by the Parliament and to decide if they are acceptable.

2. Green Paper on the European Radio Spectrum Policy

In the EUROCOM Newsletter of 16.02.1999, we informed about the Green Paper of the European Commission on Radio Spectrum Policy, inviting for comments.

SSA submitted a paper with arguments to develop in our response to the Commission. We thank Sigge, SM5KUX for this contribution.

DARC also prepared a paper to be presented to the Commission. The translation into English will be ready soon. Many thanks to DARC.

EUROCOM will present the views of the Amateur Radio service on the proposed Radio Spectrum policy within the European Union in a document to be introduced to the Commission before 15 April 1999.

Meanwhile, EUROCOM participated to the consulation meeting on the Green Paper, organised by the Commission, which took place in Brussels on 17 March 1999. Our delegation was four strong : Hilary Claytonsmith, G4JKS, RSGB President, Peter Kirby, G0TWW, RSGB General Manager, Pierre Cornelis, ON7PC, UBA Board Member and Gaston Bertels, ON4WF, EUROCOM Chairman.

Among the major discussion items, the Commission insisted on the advantages of frequency auctionning, but this idea was rejected by most of the participants. Frequency harmonising was also reviewed but many objections were raised. On the other hand, the assembly supported the idea of a better co-ordination on radio spectrum issues within the Union, as far as international representation is concerned (WRC's). This could lead to a european institutional framework for radio spectrum co-ordination.

The EUROCOM Chairman presented the Amateur Radio service to the participants, insisting on the official status of our service, a legal licence based on a technical examination, self-training and experimentation, communication potential during catastrophies, etc. He suggested that the Amateur Radio service be housed under the category Research and Development, extended to applications of public interest.

We will circulate the EUROCOM document which will be presented to the Commission within the next few weeks.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Minutes of 10/03/99 - Provisional Edition

Electromagnetic fields

Proposal for a Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz - 300 GHz (COM(98)0268 - C4-0427/98 - 98/0166(CNS))

The proposal was approved with the following amendments:

(Amendment 1)
Recital 1a (new)

Text proposed by the Commission

Amendments by Parliament

1a. Whereas the Treaty also makes provision for protecting the health of workers and the rights of consumers;

(Amendment 2)
Recital 1b (new)

1b. Having regard to the safeguard principle laid down in Article 130r of the Treaty; having regard to the ALARA principle, according to which it is necessary to aim, in this case, at an exposure to electromagnetic radiation that is as low as reasonably achievable, as defined by the WHO;

(Amendment 3)
Recital 2

2. Whereas the European Parliament in its resolution on combating the harmful effects of non-ionising radiation called on the Commission to propose measures seeking to limit the exposure of workers and the public to non-ionising electromagnetic radiation;

2.
Whereas the European Parliament in its resolution on combating the harmful effects of non-ionising radiation called on the Commission to propose *legislative* measures seeking to limit the exposure of workers and the public to non-ionising electromagnetic radiation;

(Amendment 17)
Recital 4

4. Whereas it is imperative to protect members of the general public in the Community against established adverse health effects that may result as a consequence of exposure to electromagnetic fields;

4.
Whereas it is imperative to protect members of the general public in the Community against established adverse health *or potentially harmful long-term* effects that may result as a consequence of exposure to electromagnetic fields;

(Amendment 4)
Recital 7

7. Whereas there is a need to establish a Community framework *for the protection of the public* with regard to electromagnetic fields *by means of recommendations to Member States*;

7.
Whereas there is a need to establish a *uniform* Community framework with regard *to exposure* to electromagnetic fields*, with the objective of protecting the public*;

(Amendment 5)
Recital 8

8. Whereas this framework must be based on the best available scientific data and advice in this area and should comprise basic restrictions and reference levels on exposure to electromagnetic fields; *whereas advice on this matter has been given by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and has been endorsed by the Commission's Scientific Steering Committee;*

8.
Whereas*, in accordance with the precautionary principle,* this framework*, which can draw on the large body of scientific documentation which already exists,* must *eliminate any possible public health hazard,* must be based on the best available scientific data and advice in this area and should comprise *stringent* basic restrictions and reference levels on exposure to electromagnetic fields; *whereas such advice should be regularly reviewed and reassessed in the light of increased patterns of usage of devices which may increase exposure to electromagnetic fields;*

(Amendment 6)
Recital 12a (new)

(12a) Whereas there is no uniform measurement method at European level for product compliance; whereas there is a need to prevent new technical barriers to trade;

(Amendment 7)
Recital 16

16. Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection*; whereas these recommendations should be reviewed in particular in the light of guidance by competent international organisations such as the International Commission on Non-Ionising Radiation Protection*;

16.
Whereas the Member States should take note of progress made in scientific knowledge and technology with respect to non-ionising radiation protection *and provide for regular scrutiny and review with assessments made regularly available to the European Parliament*;

(Amendment 8)
RECOMMENDATION II(b)

(b) implement measures in respect of sources or practices giving rise to exposure of the general public *to electromagnetic fields on the basis of such a framework*;

(b)
implement measures*, according to the above framework,* in respect of sources or practices giving rise to *electromagnetic* exposure of the general public*, ensuring that the highest levels of protection are afforded where the public live or spend a significant part of their time, and that research into the protection of European citizens and into the effects on their health is kept up to date*;

(Amendment 15)
RECOMMENDATION III, introduction

III. Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II:

III.
Member States, in order to facilitate and promote respect of the basic restrictions given in Annex II*, lay down minimum safety distances from electrical equipment and minimum distances from public buildings, housing and workplaces for the siting of high-voltage transmission lines, radar equipment and broadcasting and re-broadcasting transmitters, including cellular phone base stations, and set down the recommended safety distances for use, such recommendations to be displayed on the product concerned, paying particular attention - because of the proximity and length of exposure involved - to mobile telephones, and*:

(Amendment 14)
RECOMMENDATION III (ba) (new)

(ba) consider to what extent simplification can be achieved by laying down recommended safety distances for specific applications, paying particular attention to mobile phone technology;

(Amendment 10)
RECOMMENDATION V

V. Member States, in order to enhance knowledge about the health effects of electromagnetic fields: promote and review research relevant to EMF and human health in the context of their national research programmes, taking into account Community and international research recommendations and efforts;

V.
Member States, in order to enhance knowledge about the health effects of electromagnetic fields: promote and review research relevant to EMF and human health in the context of their national research programmes, taking into account Community and international research recommendations and efforts*, from the widest possible range of sources*;

(Amendment 11)
RECOMMENDATION V, 2nd subparagraph (new)

make every effort to incorporate the implications for human health resulting from the very extensive research carried out by many military experts throughout the world in this field;

(Amendments 12, 20 and 21)
INVITES

the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the matters covered in this recommendation under review, with a view to its revision and updating.

the Commission to prepare a report for the Community as a whole taking into account the reports of the Member States, and keep the matters covered in this Recommendation under review, with a view to its revision and updating
, proposing, by 1 January 2001, a system of continuous review of devices generating electromagnetic fields which will utilise information about their intensity and time of usage by the public so as to protect public safety; in addition invites the Commission to produce a comprehensive comparative list of the limits applied in the Member States of the EU and, for comparison, with other major countries in order to alleviate public disquiet over variations in standards applied; further invites the Commission to submit a proposal for the revision of Directives 90/270/EEC on the minimum safety and health requirements for work with display screen equipment(1) and 73/23/EEC(2) and 92/75/EEC(3) with a view to laying down safety criteria for electrical equipment capable of producing electromagnetic fields and to labelling such products so as to provide consumers with information on the fields generated by electrical equipment as a function of distance and the type of use to which it is put; also invites the Commission to adapt this recommendation by 2001 to take account of long-term effects in the light of the whole body of scientific literature, existing standards in the Member States and the precautionary principle.

(Amendment 13)
Annex II, 6th paragraph

The basic restrictions, given in Table 1, are set so as to account for uncertainties related to individual sensitivities, environmental conditions, and for the fact that the age and health status of members of the public vary.

The basic restrictions, given in Table 1,
include large safety factors only with respect to the thresholds for acute effects; they are set so as to account for uncertainties related to individual sensitivities, environmental conditions, and for the fact that the age and health status of members of the public vary.

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(1) OJ L 156, 21.6.1990, p. 14.
(2) OJ L 181, 4.7.1973, p. 32.
(3) OJ L 297, 13.10.1992, p. 16.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
23.03.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

Draft report of the Committee on Economic and Monetary Affairs and Industrial Policy

The Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and Research and Development was submitted by the Commission to the Committee on Economic and Monetary Affairs and Industrial Policy.

The Committee has appointed Mr Felipe Camisón Asensio as rapporteur.

A motion for a resolution was drafted in a report dated 19 march 1999. This draft report is appended.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

EUROPEAN PARLIAMENT

19 March 1999 A4-0000/99

DRAFT REPORT

on the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)

Committee on Economic and Monetary Affairs and Industrial Policy

Rapporteur: Mr Felipe Camisón Asensio

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PROCEDURAL PAGE

By letter of 15 December 1998 the Commission forwarded its Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99).

At the sitting 12 February 1998, the President of Parliament announced that he had referred the Green Paper to the Committee on Economic and Monetary Affairs and Industrial Policy as the committee responsible, the Committee on Budgets, the Committee on Research, Technological Development and Energy and the Committee on Transport and Tourism for their opinions.

At its meeting of 8 February 1999, the Committee on Economic and Monetary Affairs and Industrial Policy had appointed Mr Camisón Asensio rapporteur.

The Committee on Economic and Monetary Affairs and Industrial Policy considered the Green Paper and the draft report at its meetings of ..... 1999 and .....1999.

At the last meeting it adopted the motion for a resolution unanimously.

The following were present for the vote: von Wogau, chairman; Katiforis, Garosci and Secchi, vice-chairmen;....., rapporteur; .....

The explanatory statement will be presented orally in plenary sitting.

The Committee on Budgets, on 17 February 1999, the Committee on Research, Technological Development and Energy, on 23 February 1999 and the Committee on Transport and Tourism, on 17 February 1999 decided not to deliver an opinion.

The report was tabled on ..... 1999.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

A.
MOTION FOR A RESOLUTION

Resolution on the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)

The European Parliament,

- having regard to the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)[1],

- having regard to the Commission communication on Radio frequency requirements for Community policies in the context of 'The World Radiocommunications Conference 1999' (WRC-99) (COM(98)0298)[2],

- having regard to the Commission communication, on the World Radiocommunications Conference 1997 (WRC-97) (COM(97)0304)[3],

- having regard to the report of the Committee on Economic and Monetary Affairs and Industrial Policy and the opinions of the Committee on Budgets and of the Committee on Research, Technological Development and Energy (A4-0000/99),

1. Whereas radio spectrum policy and spectrum management has been primarily addressed as a matter of national political control;

2. Whereas the introduction and deployment of frequency dependent pan-European and global services are, however, subject to EU legislation (e.g. assignment/licensing, marketing/use of equipment) and policies (e.g. telecommunications, broadcasting, transport) and to international commitments (e.g. ITU/WRC, WTO);

3. Whereas the absence of effective harmonisation of European spectrum policy, except for a limited number of specifically identified areas, is a factor of increased costs, delays for deployment of new services and unefficient management or re-allocation of frequency bands;

---

[1] OJ C ...

[2] OJ C ...

[3] OJ C ...

4. Whereas, in an internal market and a space with no internal borders to the free movement of people and services, management of the radio spectrum based on national decision-making becomes anachronistic and counter-productive, especially when Member States participate in international fora such as CEPT and ITU;

5. Whereas the development of more efficient transmission systems based on digital technologies should not be hampered by the continued allocation of frequency bands to systems based on older technologies, except when there is a clear public interest to maintain these;

1. Approves the initiative by the Commission of starting a debate on all aspects of radio spectrum policy which are pertinent in the Community and global context, be it for telecommunications, broadcasting, transport or research, and to strive for a coherent and balanced approach across all sectors;

2. Considers that a new approach should be initiated, where harmonized policy-making with regard to frequency availability should be the rule so as to allow for systematically pan-European services and ensure a flexible and adaptative framework overcoming the rigidities entailed by the current situation of fragmented national policies, while allowing the preservation of legitimate issues of national decision-making where these are justified, in particular for the management and assignment of frequencies;

3. Calls for a a strengthening of procedures to be implemented at EU level to guarantee that the positions of the Community and its Member States are co-ordinated in all circumstances in the international bodies, and that recommendations of the ITU or the ERC are appropriately transposed within a consistent time scale;

4. Llama especificamente la atención sobre la trascendencia que tendría para los intereses comunitarios la circunstancia de que todos los gobiernos de los Estados miembros respaldaran politicamente, de la forma más amplia posible, una posición conjunta consensuada ante la próxima Conferencia Mundial de las Radiocomunicaciones (CMR-99);

5. Calls for a systematic planning framework for the usage of frequencies to be initiated and implemented at EU-wide scale, so as to make possible a consistent and economical refarming of frequencies basing on the economies of scale that might be achieved from such a EU-wide approach;

6. Recommends that frequency allocations be subject to harmonized criteria regarding efficient use, and that the use of already allocated frequencies be periodically assessed for all sectors, both commercial and public, so as to avoid their sub-optimal utilization;

7. Recommends that radio spectrum policy and spectrum management should facilitate technological innovation and stimulate competition and that the use of auctions and other pricing and fee mechanisms by Member States should enhance efficient use of frequencies;

8. Recommends that revenues raised through the use of radio spectrum is dedicated to enhance radio spectrum availability and efficiency, for example where re-allocation of frequencies is necessary;

9. Warns therefore against the biases introduced in a sound management of frequencies and in the development of competition which is induced by the tendency in some Member States to auction or price spectrum for given activities, unless the corresponding revenues are specifically used to cover the costs induced by the re-allocation of frequencies;

10. Considers that the EU should take a clear commitment to the accelerated re-allocation of frequencies currently used by traditional analog transmission systems in favour of their more modern and spectrum-efficient counterparts, except when there is a clear and defined public interest to maintain these, such as for public broadcasting;

11. Confirms its strong support for harmonized European and, whenever possible, international standards developed basing on a wide industry consensus and warns against any attempt of spoiling valuable spectrum space by allowing for the proliferation of redundant competing technical specifications with no visible added value;

12. Regrets that no middle-term strategy seems to exist to allow for dealing with those spectrum management issues which fall in the remit of Member States but which might require exchange of information and even co-ordinated approach to promote a consistent industrial policy planning and promotion of industrial standards so as to achieve economies of scale, in particular regarding short distance radio transmissions, radio navigation and fixed wireless telecommunications;

12. Calls for securing suitable frequency bands for those EU policy areas which depend on frequency availability and for which political or legal agreement has been established in the EU;

13. Considers that, although some progress has been made in the last years, the situation of frequency management in air traffic control is far from satisfactory and should be given a high priority in the Community's strategy;

14. Calls for securing a suitable frequency band for a Global Navigation System per Satellite and for innovative telecommunications systems using high atmospheric transmissions;

15. Insists on the need to ensure that the neighbouring countries of the Union, in particular CEECs and Mediterranean countries are involved at early stages so as to prepare for pan-European harmonized bands;

16. Instructs its President to forward this resolution to the Council and Commission and to the Member States.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
07.04.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

1. Draft report of the Committee on Economic and Monetary Affairs and Industrial Policy

Appended to our previous Newsletter of 23.03.1999, we circulated the draft report of the parliamentary Committee on the Commission's Green Paper on Radio Spectrum Policy.

We had the opportunity, through the intervention of M. Fernando Fernández-Martín, MEP (EA8AK), to propose two amendments to the *motion for a resolution*, presented in this draft:

6. Whereas non-profit applications of public interest shall be considered with sufficient care;

15.1. Calls for securing the spectrum for Research, Science and non-profit applications of public interest, such the Amateur Radio service;

Rapporteur M. Felipe Camisón Asensio has accepted these amendments to his report.

The draft report has still to be approved by the Committee and by the plenary of the Parliament, probably in May 1999.

If these amendments are adopted by the Parliament in its resolution, the position of the Amateur Radio service will be strengthened as far as the Spectrum Policy of European Union is concerned.

We are very gratefull to M. Fernando Fernández-Martín, EA8AK, for his support in this important issue.

2. Comments on the Green Paper, presented by EUROCOM

In our Newsletter of 23.03.1999, we announced that two societies had submitted a paper with arguments to be presented to the Commission: SSA and DARC.

Taking into account these arguments, we prepared the *Comments on the Green Paper* which we have now submitted to the European Commission.

The text of these Comments is appended *(GreenComm.rtf)*.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel : +32.2.771.67.74 Fax : +32.2.771.49.89 E-Mail : gaston.bertels @ village.uunet.be

Green Paper of the European Commission on Radio Spectrum Policy

Comments presented by the EUROCOM Working Group of the International Amateur Radio Union Region 1

Foreword

EUROCOM welcomes the Green Paper as an important means for discussing the optimum use of the frequency spectrum with the parties involved, the purpose being to develop a frequency policy in accordance with the European Union's objectives.

It has been recognised quite correctly that the frequency administration of the CEPT has hitherto been predominantly based on technical considerations whereas free-market aspects have to be taken into account also. Moreover, the increasing market integration inevitably adds a community dimension to the frequency management policy.

The Green Paper also emphasises the fact that "*A significant number of spectrum users do not operate in a commercial environment, but have to compete with commercial users when obtaining spectrum. A key regulatory task is to find the* ***balance between certain well-defined public/non-commercial uses of radio spectrum and the need for radio spectrum as an essential resource for doing business****".*

Not all radio spectrum applications can be optimised by the regulating mechanism of competition. Other instruments have to be employed as well, these requiring a variety of regulations and methods including appropriate criteria only insufficiently available so far and whose development has only just begun. Applications needing other criteria than market competition shall also be classified as relevant of the community's goals. Eventually, there might be fields to be entirely excluded from the frequency policy of the European Union.

We, therefore, explicitly agree that the European Commission emphasises in the proposed reorganisation of the frequency spectrum that not only economical and political but also cultural interests have to be weighed up carefully. Public interests shall be included in the considerations.

The Amateur Radio service

EUROCOM represents the national Amateur Radio societies of the Member States within the European Union. Individual membership is more than 250.000 licenced radio experimenters.

The Amateur Radio service was officially established by the International Telegraphy Convention of 1927 in Washington, DC. Amateur Radio is defined by the Radio Regulations of the International Telecommunication Union (ITU) as follows :

Amateur Service : *A radio communication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.*

Amateur-Satellite Service : *A radiocommunication service using space stations on earth satellites for the same purposes as those of the amateur service.*

Only legally licenced operators are entitled to use the amateur radio spectrum segments and an amateur licence is granted to candidates who have successfully passed a harmonized examination on radioelectricity, radioregulations, security and protection against exposure to electromagnetic fields.

All aspects related to the use of radiowaves for conveying intelligence are covered by the amateur experimenters but the communication itself is NOT the essential part of it. Only technical information is suitable for interchange and personal messages are limited to those sufficiently unconfidential not to need the use of the official postal and telecommunication channels. Any commercial use is strictly prohibited. Offenders are exposed to criminal pursuit, loss of licence and seizure of their equipment.

Self-training is an important aspect of Amateur Radio, for its contribution to the development of technological skills in all layers of society. An early interest in Amateur Radio often results in a valuable technical job or leads to an engineering career or scientific research.

Amateur Radio experimenters are frequently involved in scientific investigations on the propagation of radio waves, as well as in the development of new techniques, as well space as terrestrial. For example, the Amateur Radio service has been sollicited by the Geophysics Division of the Belgian Royal Meteorological Institute to set up an experiment to measure the effects of the Sun eclipse of 11 August 1999 on the ionosphere. The measurements made with their own equipment by several volunteers, according to a well defined planning, will be summarized and compared to the observations of the ionosounder of the Institute, located in Dourbes (near the French border).

Moreover, the communication potential of the Amateur Radio service, with licencees owing and maintaining their own equipment, has often proven to be of vital importance when a catastrophy destroys or overloads the usual telecommunication channels, even those of the rescue services.

In every country, Amateur Radio is a national resource, protected and supported by the authorities.

Frequency allocation to the Amateur Radio service

The Amateur Radio service uses internationally harmonised frequency segments. These segments are defined by the International Telecommunication Union and implemented by the national regulatory authorities.

Amateur Radio licensees are free to use any frequency within these spectrum segments for their experimental transmissions. These experiments are frequently conducted over large distances, covering several countries and continents. Amateur made space stations on board of experimental earth satellites are used every day, and transmissions involving the reflection of radiowaves on the surface of the Moon and on meteorite trails, as well as other experiments are very common.

All these activities imply the use of worldwide harmonized frequency segments. The necessary band planning, within the ITU-defined spectrum segments, is done on a voluntary basis by the International Amateur Radio Union, the worldwide non-profit organization of the national Amateur Radio societies.

It is of vital importance, for the Amateur Radio service, that the European Union radio spectrum policy consider these special needs.

EMC and R&TTE Directives

The European Union has already taken steps in favour of the Amateur Radio service.

Directive 89/336/EEC on Electro Magnetic Compatibility applies to radio equipment intended to be used by radioamateurs when this equipment is available commercially. For home made equipment, it is the personal responsibility of the licensee to limit non-essential radiation.

Annex I of the R&TTE Directive states:

Equipment not covered by this Directive : Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.

Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

By exempting the Amateur Radio experiments from the CE-identification as well as from the declaration of conformity, the European Union clearly recognizes the value of the Amateur Radio service and the reliability of its licensed operators.

Radio Spectrum Policy

- Harmonisation of Amateur Radio frequencies and their allocation to individual Amateur Radio stations is not required, since radioamateurs can choose the frequency suitable for their experimental activities within world-wide harmonised frequency segments.
- As far as the frequency policy of the European Union is concerned, radioamateurs take a strong interest in a balanced approach between commercial and economical interests on one hand and political, social and public interests on the other hand. Decisions in this field shall be based on an open, transparent, objective and non-discriminating procedure.
- The optimum use of the spectrum is strongly affected by the standards in use not only for radio sets, but also for other appliances, especially those with active and passive components in the consumer area as well as in the production and investment area. The electromagnetic compatibility of all electrical equipment and the total level of electromagnetic fields is a determining parameter to optimise frequency use.
- Health protection against electromagnetic fields is of fundamental importance. The Amateur Radio service welcomes the uniform concepts and measures already introduced by the European Union as far as safety is concerned. The drafted European Recommendation COM(1998) 268, presently under discussion, is based on limit values recommended by the ICNIRP (International Commission for non-ionising radiation protection). Lower limit values cannot be substantiated by the latest scientific research. With regard to health protection against electromagnetic fields, the European Union should exert their influence on the European Standards Committees such as CENELEC (European Committee for electro-technical standards). Applicable standards (ENV 50 166-2) should finally be decided upon and be harmonised within the European Union.

Conclusion

We suggest that the Amateur Radio service be entered into the classification presented by the Green Paper in Table 1: "Radio-based sectors and activities".

The proper section should be "Research and Development". However, there are a series of scientific, technical and other radio services, which can neither be considered for regulation by competitive mechanisms. Therefore, **we suggest to replace the wording "Research and Development" by "Scientific applications and other applications of public interest" and to have the Amateur Radio service housed there.**

By this classification it becomes clear that the Amateur Radio service supports the essential objectives of the spectrum policy of the European Union, in particular:

- the realisation of objectives of public interest, e.g. regarding safety, social and cultural aspects
- the development of technological innovations and consequently the European Union's competitive strength.

We are confident, that the European Commission will continue to pay attention to the particular needs of the Amateur Radio service and consider it as a Union's resource, to be protected and supported.

Gaston Bertels
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
13.04.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

Comments on the Green Paper, presented by EUROCOM, now published by the EC

In our Newsletter of 23.03.1999, we announced that we had submitted a paper to the European Commission bearing our *Comments on the Green Paper*.

This paper has now been made available by the EC on their Spectrum Green Paper Web-page.

You can download all comments received by the EC from :

http://www.ispo.cec.be/spectrumgp/sgpcomment.htm

Up till now, about 20 comments have been published. The CEPT Response to the Green Paper is very exhaustive. We recommend downloading it for further scrutiny.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
15.04.1999

R&TTE Directive published in the OJEC

The R&TTE Directive has been published in the 7.4.1999 issue of the Official Journal of the European Communities.

It is now called:

Directive 1999/5/EC of the European Parliament and of the Council
of 9 March 1999
on radio equipment and telecommunications terminal equipment
and the mutual recognition of their conformity

For the Amateur Radio service, Annex I is especially important:

ANNEX I

EQUIPMENT NOT COVERED BY THIS DIRECTIVE AS REFERRED TO IN ARTICLE 1(4)

1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.

   Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

This is the final step in a very long effort we sustained during several years for preserving the privilege to build our own experimental equipment, without being submitted to prohibitive homologation measures.

You can download the text of the Directive from the Internet. It is at your disposal in every of the eleven official EU languages.

Best way to do this is to follow these steps:

- open the URL **http://europa.eu.int/**
- select the **Welcome** in your own language
- select **Legal texts**
- select **Official Journal**
- select in the calendar **7 APRIL 1999**
- select **L91**
- select item **10**

The text is in **pdf format**. You will need Acrobat Reader to decode it and to print it out. It is 19 pages long.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
23.04.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

Report of the Committee on Economic and Monetary Affairs and Industrial Policy (EMAC)

1. Drafted Motion adopted by EMAC

In the EUROCOM Newsletter of 07.04.1999 we announced our efforts to introduce amendments to the draft report of the parliamentary EMAC Committee bearing a motion for a Resolution on the Commission's Green Paper on Radio Spectrum Policy. This amendment was submitted by M. Fernando Fernández-Martín, MEP (EA8AK).

On 21 April 1999, the motion for a Resolution was adopted unanimously by the EMAC.

The amendments we prepared were accepted :

G. Whereas non-profit applications of public interest shall be considered with sufficient care;

17. Calls for securing the spectrum for Research, Science and non-profit applications of public interest, such the Amateur Radio service;

The text of the EMAC Report is appended.

2. Comments

The report is now submitted by EMAC to the European Parliament. It is to be discussed by the EP in part-session.

To be underlined is the fact, that the Amateur Radio service has been qualified, in a european parliamentary document, as a "non-profit application of public interest".

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

21 April 1999 A4-0202/99

REPORT

on the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)

Committee on Economic and Monetary Affairs and Industrial Policy

Rapporteur: Felipe Camisón Asensio

PE 229.757/fin.

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PROCEDURAL PAGE

By letter of 15 December 1998 the Commission forwarded its Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99).

At the sitting 12 February 1999, the President of Parliament announced that he had referred the Green Paper to the Committee on Economic and Monetary Affairs and Industrial Policy as the committee responsible, the Committee on Budgets and the Committee on Research, Technological Development and Energy for their opinions.

At its meeting of 8 February 1999, the Committee on Economic and Monetary Affairs and Industrial Policy had appointed Mr Camisón Asensio rapporteur.

The Committee on Economic and Monetary Affairs and Industrial Policy considered the Green Paper and the draft report at its meetings of 30 March 1999 and 21 April 1999.

At the last meeting it decided to apply the procedure without debate pursuant to Rule 99(1) of the Rules of procedure.

At the last meeting it adopted the motion for a resolution unanimously.

The following were present for the vote: Katiforis, vice-chairman, acting chairman, Garosci and Secchi, vice-chairmen; Camison Asensio, rapporteur; Areitio Toledo, Arroni, Billingham, Carlsson, Carrozzo, Cassidy (for Friedrich), Christodoulou, Cunningham (for Caudron), Funk (for García-Margallo), Gallagher, García Arias, Glante, Goedbloed (for Riis-Jo,/rgensen), Hautala, Hendrick, Herman, Hoppenstedt, Ilaskivi, Kestelijn-Sierens, Langen, Mann E. (for Harrison), Mann T. (for Konrad), Metten, Miller, Murphy, Peijs, Pérez Royo, Peter (for Paasilinna), Porto (for Lulling), Rapkay, Read, Rübig, Siso Cruellas (for Mather), Soltwedel-Schäfer, Thyssen, Torres Marques, Watson.

The explanatory statement will be presented orally in plenary sitting.

The Committee on Budgets, on 17 February 1999 and the Committee on Research, Technological Development and Energy, on 23 February 1999 decided not to deliver an opinion.

The report was tabled on 21 April 1999.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

A
MOTION FOR A RESOLUTION

Resolution on the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)

The European Parliament,

- having regard to the Green Paper on Radio Spectrum Policy in the context of European Community policies such as telecommunications, broadcasting, transport, and R&D (COM(98)0596 - C4-0066/99)([1]),

- having regard to the Commission Communication on Radio frequency requirements for Community policies in the context of 'The World Radiocommunications Conference 1999' (WRC-99) (COM(98)0298)([1]),

- having regard to the Commission Communication on the World Radiocommunications Conference 1997 (WRC-97) (COM(97)0304)([1]),

- having regard to the report of the Committee on Economic and Monetary Affairs and Industrial Policy (A4-0202/99),

1. whereas radio spectrum policy and spectrum management has been primarily addressed as a matter of national political control,

2. whereas the introduction and deployment of frequency dependent pan-European and global services are, however, subject to EU legislation (e.g. assignment/licensing, marketing/use of equipment) and policies (e.g. telecommunications, broadcasting, transport) and to international commitments (e.g. ITU/WRC, WTO),

3. whereas the absence of effective harmonisation of European spectrum policy, except for a limited number of specifically identified areas, is a factor of increased costs, delays for deployment of new services and unefficient management or re-allocation of frequency bands,

4. whereas, in an internal market and a space with no internal borders to the free movement of people and services, management of the radio spectrum based on national decision-making becomes anachronistic and counter-productive, especially when Member States participate in international fora such as CEPT and ITU,

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([1]) OJ C not yet published
([2]) OJ C 266, 1.10.93, p. 11
([3]) OJ C not yet published

E. whereas, if the EU is unable to act on behalf of the EU Member States in the field of frequency policy in international fora such as the ITU, this could act as a brake on efforts to improve the EU's competitiveness with the United States and Japan,

F. whereas the development of more efficient transmission systems based on digital technologies should not be hampered by the continued allocation of frequency bands to systems based on older technologies, except when there is a clear public interest to maintain these,

G. Whereas non-profit applications of public interest shall be considered with sufficient care;

1. Approves the initiative by the Commission of starting a debate on all aspects of radio spectrum policy which are pertinent in the Community and global context, be it for telecommunications, broadcasting, transport or research, and to strive for a coherent and balanced approach across all sectors;

2. Considers that a new approach should be initiated, where harmonised policy-making with regard to frequency availability should be the rule so as to allow for systematically pan-European services and ensure a flexible and adaptative framework overcoming the rigidities entailed by the current situation of fragmented national policies, while allowing the preservation of legitimate issues of national decision-making where these are justified, in particular for the management and assignment of frequencies;

3. Calls for a a strengthening of procedures to be implemented at EU level to guarantee that the positions of the Community and its Member States are co-ordinated in all circumstances in the international bodies, and that recommendations of the ITU or the ERC are appropriately transposed within a consistent time scale;

4. Specifically draws attention to how valuable it would be to Community interests if all the Member State governments were to give the broadest possible political support to an agreed common position for the purposes of the forthcoming World Radiocommunications Conference (WRC-99);

5. Calls for a systematic planning framework for the usage of frequencies to be initiated and implemented at EU-wide scale, so as to make possible a consistent and economical refarming of frequencies basing on the economies of scale that might be achieved from such a EU-wide approach;

6. Recommends that frequency allocations be subject to harmonised criteria regarding efficient use, and that the use of already allocated frequencies be periodically assessed for all sectors, both commercial and public, so as to avoid their sub-optimal utilisation;

7. Recommends that radio spectrum policy and spectrum management should facilitate technological innovation and stimulate competition and that the use of auctions and other pricing and fee mechanisms by Member States should enhance efficient use of frequencies;

8. Recommends that revenues raised through the use of radio spectrum is dedicated to enhance radio spectrum availability and efficiency, for example where re-allocation of frequencies is necessary;

9. Warns therefore against the biases introduced in a sound management of frequencies and in the development of competition which is induced by the tendency in some Member States to auction or price spectrum for given activities, unless the corresponding revenues are specifically used to cover the costs induced by the re-allocation of frequencies;

10. Considers that the EU should take a clear commitment to the accelerated re-allocation of frequencies currently used by traditional analog transmission systems in favour of their more modern and spectrum-efficient counterparts, except when there is a clear and defined public interest to maintain these, such as for public broadcasting;

11. Confirms its strong support for harmonised European and, whenever possible, international standards developed basing on a wide industry consensus and warns against any attempt of spoiling valuable spectrum space by allowing for the proliferation of redundant competing technical specifications with no visible added value;

12. Regrets that no middle-term strategy seems to exist to allow for dealing with those spectrum management issues which fall in the remit of Member States but which might require exchange of information and even co-ordinated approach to promote a consistent industrial policy planning and promotion of industrial standards so as to achieve economies of scale, in particular regarding short distance radio transmissions, radio navigation and fixed wireless telecommunications;

13. Calls for securing suitable frequency bands for those EU policy areas which depend on frequency availability and for which political or legal agreement has been established in the EU;

14. Considers that, although some progress has been made in the last years, the situation of frequency management in air traffic control is far from satisfactory and should be given a high priority in the Community's strategy;

15. Calls for securing a suitable frequency band for a Global Navigation System per Satellite and for innovative telecommunications systems using high atmospheric transmissions;

16. Insists on the need to ensure that the neighbouring countries of the Union, in particular CEECs and Mediterranean countries are involved at early stages so as to prepare for pan-European harmonised bands;

17. Calls for securing the spectrum for Research, Science and non-profit applications of public interest, such as Amateur Radio service;

18. Instructs its President to forward this resolution to the Council and Commission and to the Member States.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
05.05.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

Motion of Resolution presented by the Committee on Economic and Monetary Affairs and Industrial Policy (EMAC)

1. Resolution adopted by Parliament

In the EUROCOM Newsletter of 23.04.1999 we announced the amendments in favour of the Amateur Radio service, introduced to the draft report of the parliamentary EMAC Committee bearing a motion for a Resolution on the Commission's Green Paper on Radio Spectrum Policy.

On 4 May 1999, the European Parliament adopted the Resolution, included the amendments:

G. Whereas non-profit applications of public interest shall be considered with sufficient care;

17. Calls for securing the spectrum for Research, Science and non-profit applications of public interest, such the Amateur Radio service;

2. Text of the Resolution

The adopted text is available on Internet. To download, proceed as follows:

- **http://europa.eu.int/**
- choose the **language** you want
- click on **Parliament** (Institutions)
- click on **Plenary sessions**
- click on **Minutes Part II by A4 number**
- click on 1999 and fill in A4 **0202**

2. Comment

Thus, the Amateur Radio service has been duly qualified, in a parliamentary Resolution about the European Radio Spectrum Policy, as a "non-profit application of public interest".

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
12.05.1999

Green Paper on Radio Spectrum Policy
(COM(98)0596)

1. A parliamentary question

In addition to presenting the now adopted EUROCOM amendements to the Resolution of the EP on the Radio Spectrum Policy, M. Fernando Fernández Martín, MEP (EA8AK) had addressed a parliamentary question to Commissioner Bangemann.

QUESTION BY FERNANDO FERNÁNDEZ MARTÍN TO COMMISSIONER BANGEMANN
24.03.99

The European Commission, through DGXIII's services, is working on the last details of the Green Paper on Radio Spectrum Policy. In it, the radio amateur service is not even mentioned. For this reason, we must assume that the Commission does not contemplate its regulation.

The radio amateur service is regulated by international conventions and by the agreements reached within the I.T.U. (International Telecommunications Union) which are applied in all member states.

In the European Union, there are presently around 300.000 radio amateurs with official licence, who are active on HF, VHF and UHF bands. They are a group of highly trained and qualified citizens, which investigates and contributes to technological development in a wide field of activities (studies on propagation, new transmission systems, satellite communications, etc). For this reason, the Commission's omission of the Radio Amateur services in the preparatory documents of the afore mentioned Green Paper, should be corrected.

What is the opinion of the Commissioner responsible for this matter and what measures does he intend to adopt to rectify this omission?

REPONSE OF THE COMMISSION

The Commission published on 15th December 1999 a Green Paper on radio spectrum policy[1] and opened a consultation period during which all those affected were invited to present, before 15th April 1999, their comments on the matters and problems mentioned in the Green Paper. The Commission also organised three public hearings (for individual societies or enterprises on 24th February 1999, for pressure groups or associations on 17th March 1999 and for administrations on 30th March 1999). The International Amateur Radio Union took part in one of these meetings and had, as it still does, the opportunity to voice its opinions.

[1] COM(1998)596 final

Radio amateurs are encouraged, as well as national or European pressure groups, to present in writing any observation they consider important. All comments will be published in the following web site: http://www.ispo.cec.be/spectrumgp.
The Green Paper deals with radio spectrum policy in a very general way, and can be applied to all sectors and applications, including amateur radio activities liable to be included in the research and development chapter of the Green Paper. The Commission will be delighted to receive any comment from representative amateur radio interest groups on strategic matters related to radio spectrum policy, and will study the proposals carefully in the global context of all the responses received.

2 Comment

As announced in the Newsletter of 13/04/1999, EUROCOM addressed comments on the Spectrum Green Paper to the Commission. These comments are already published on the above mentioned web site.

The period for presenting comments ended 15 April 1999.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
04.05.1999

EUROCOM WG meeting at Ham Radio in Friedrichshafen

I. Invitation

A EUROCOM WG meeting will be held on **Saturday 26.06.1999 at 13:00h** in the Seehotel in Friedrichshafen (Central railway station).

Member societies are kindly invited to delegate their representative(s) to this meeting.

II. Agenda

1. Welcome and roll call
2. Appointment of secretary
3. Approval of agenda
4. EUROCOM WG Report to the General Conference (appended)
   - presentation
   - discussion
5. Topics presented by participants
6. All other business
7. End of meeting (15:00h)

Many thanks to DARC for kindly hosting this EUROCOM meeting.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
16.06.1999

PLT issues to be discussed at the EUROCOM WG meeting in Friedrichshafen

The RSGB President Hilary Claytonsmith, G4JKS suggested to put the topic of Power Line Telecommunications on the Agenda of the EUROCOM meeting in Friedrichshafen, Saturday 26.06.1999 at 13:00 h (see previous Newsletter).

PLT is becoming more and more threathening in several countries, especially in the UK, in Germany and in the Netherlands.

The RSGB has taken action by putting up an HF forum with HF users and the authorities. The issue of PLT is clearly a political one. A Press Release has recently be prepared to explain the drawbacks of PLT in simple wordings. This very efficient text will be presented by the RSGB at the EUROCOM meeting.

May I suggest to prepare your contribution to this agenda point if you have any information on this topic.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
02.07.1999

1. EUROCOM WG meeting in Friedrichshafen - Report

The programmed EUROCOM WG meeting (see Newsletters of 13.05.1999 and 16.06.1999) went on in Friedrichshafen (Seehotel) on Saturday 26.06.1999 at 13:00 hrs.

Don Beattie, G3GOF accepted to act as secretary to the meeting. His report is appended (Annex 1). Thank you Don.

2. PLT

The major topic discussed at the meeting in Friedrichshafen was the Power Line Telecommunications issue.

RSGB reported action towards the authorities, the press and the MP. Appended is the text of the Press Release used for this purpose (Annex 2). The briefing paper presented by Hilary Claytonsmith, G4JKS is also appended (Annex 3).

DARC reported on the situation in Germany. Appended is a summary by H-J Brandt, DJ1ZB (Annex 4).

3. Thanks

We are very gratefull to the DARC for hosting this EUROCOM WG meeting.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annexes : 4

Notes from the EUROCOM Working Group meeting held at the Seehotel, Friedrichshafen on 26th June 1999 at 13.00 hrs

Present:	DJ1ZB	H J Brandt
	DL3OAP	W Schlink
	DK9HU	K E Voegele
	DL9KCE	T Kootz
	G0TWW	P Kirby
	G3OZF	D F Beattie
	G4JKS	M H Claytonsmith
	ON4WF	G Bertels
		Christina Volmer

1 Agenda

The agenda for the meeting, previously circulated, was approved

2 Chairman's report

The Chairman, ON4WF summarised his report (included in the Region 1 Lillehammer Conference papers), highlighting:

- the success achieved on the R&TTE Directive in excluding from scope home constructed and modified equipment and kits.
- the stop on more stringent EMF limits (the Tamino proposal)
- the European Green paper on spectrum policy
- the agreement by the European Parliament that the amateur service is of "public interest"
- the continuing threat of HF mains signalling (PLT)

The report was accepted by the meeting and ON4WF was congratulated on his work on behalf of EUROCOM

DJ1ZB expressed concern that the R&TTE Directive made reference to EMC issues and that the dispensation for some amateur equipment may be based on the assumption that amateurs have good EMC skills. This may need to be taken into account in developing the qualifications for future categories of licence.
Action: DJ1ZB to produce a brief paper outlining the position

3 Power Line Telecommunications (PLT)

G4JKS distributed a paper updating the meeting on developments in the UK and recent actions by the RSGB. The issue had moved from a technical debate into a political one. DJ1ZB explained that the German Ministry of Economics has issued radiation limits for PLT/XDSL which were still being discussed. A 7.7 MHz portion of HF/LF had been proposed as “suitable for PLT” which included amateur bands. A paper will be circulated shortly on the PLT position in Germany. **Action: DJ1ZB**

DK9HM explained that technical, legal and political statements had been made to the Ministry of Economics on PLT. These will be circulated to members of the Working Group.
Action: DK9HM

After an extensive discussion on this significant threat to amateur radio, it was agreed to begin lobbying members of the European Parliament. DK9HM will provide ON4WF with a suitable letter for general use, which ON4WF will translate and forward to relevant European Societies for action.
Action: DK9HM

4 RadHaz

The Working Group reviewed the position on RadHaz legislation. It was generally agreed that some pressures were likely to arise to harmonise standards across the EU. The Working Group noted the European Parliament recommendation to members states to define EMF limits. It was reported that in response to German legislation, power levels of MF broadcast transmitters had in some cases been significantly reduced.

5 Telephone immunity

Japanese tests have suggested that the current standard of immunity of 3V/m into 150 ohms might sensibly be relaxed. A level of 1V/m reducing to 0.4V/m from 10 to 80 MHz has been suggested. The Working Group felt that this might be acceptable on the basis that administrations agreed to legalise the taking of mitigating measures with the telephone equipment when interference was experienced.
Action: DJ1ZB to notify Christian Verholt

6 Amateur Radio equipment in vehicles

A discussion took place on the current RF power levels in vehicles which are agreed by vehicle manufacturers. It was agreed that DARC should circulate the latest version of the manufacturer list showing maximum RF transmission powers acceptable.
Action: DARC

G4JKS reminded the meeting that exceeding these levels could invalidate both the vehicle warranty and insurance.

7 Standards for small antenna masts

It was reported that this was now not likely to become a standard (ETSI) but a statement of recommended practice.

The meeting closed at 14.45 hrs.

The Radio Frequency Spectrum and its protection from Power Line Telecommunications

The Radio Frequency Spectrum

The 'Radio Frequency (RF) Spectrum' means the whole range of frequencies which can be used for radio communications. The RF spectrum is a limited natural resource, shared by many different users such as radio and television broadcasting, emergency services, aircraft, ships, armed forces, mobile phones, radio amateurs and many more. The use of the various frequencies is regulated by licensing. Two users cannot use the same frequency unless they are far enough apart to avoid interference. This results in a great demand for the limited number of frequencies available.

HF or 'Short Wave' radio

Different radio frequencies have different properties; most travel in straight lines and do not go far beyond the horizon. Of all the RF spectrum available, a tiny fraction, mainly in the High Frequency (HF) or 'short wave' band, can travel long distances by 'sky wave' propagation. These waves are reflected to earth by the naturally occurring ionised layers in the upper atmosphere. They are the backbone of world-wide radio communication using natural propagation modes. HF communications are used by the armed forces to provide long range communications without relying on vulnerable satellites. Other users include civil aviation, international radio broadcasting such as BBC World Service and licensed radio amateurs. New digital radio technology has made military HF communications much more reliable and easy to use. New technology is also being developed for HF broadcasting. Digital Radio Mondiale (DRM) promises high quality radio broadcasts over long distances.

Interference control

Many types of electrical equipment such as electric motors, computers and car ignition systems can generate radio interference. Avoiding interference is called Electromagnetic Compatibility or EMC. Various international standards to control interference have been developed since the 1930s. These include limits for 'conducted emissions', to control interference that travels along mains wiring, leaking out along the way. Under the UK Electromagnetic Compatibility Regulations, (Statutory Instrument No. 2372, 1992), all new electrical and electronic equipment manufactured since 1st Jan. 1996 must meet the relevant EMC standards. These regulations are the UK response to the European EMC Directive, 89/336/EEC.

Power Line Telecommunications

Various systems exist that use mains supply wiring for communication but the frequencies used are below those generally used for radio communication so the potential for interference is minimised. Recent proposals for Power Line Telecommunications (PLT) would use much higher frequencies than before. These frequencies are in the HF band and are already allocated to various radio services such as the Army, Air Force and civil aviation. Because of the nature of mains wiring, PLT signals inevitably leak out as radio waves and could cause interference to other radio services. In order to make PLT a viable proposition, it would be necessary to relax existing EMC standards by a large amount. PLT would occupy a substantial proportion of one of the most useful sections of the HF spectrum and would render it virtually useless for radio communications in areas where PLT is operating.

Current proposals for PLT would avoid producing intentional signals in bands used by radio amateurs but unintentional PLT signals could 'spill over' onto other frequencies used by radio amateurs and short wave listeners, causing interference to reception. The RSGB is concerned that current proposals provide insufficient protection against these unintentional signals, which could be many times more powerful than the typical background radio noise level. Interfering signals at this level could mask all but the strongest amateur radio signals, rather like astronomers looking at stars through a layer of smog. Although the 'smog' would be 'electronic smog', it still results in pollution of a limited natural resource.

Alternatives to PLT

There are other ways of providing Internet access for homes, schools and small businesses, that would be more satisfactory in the longer term. New access media such as microwave radio links or optical fibre cables could be installed. Existing cables such as telephone lines or cable television networks could also be used. Although the phone line and cable TV systems have EMC implications of their own, these would be less severe than with PLT. In addition, the use of dedicated cables to the customer's premises would permit corrective action to be taken if radio interference is found to be excessive in any particular location. With PLT, interference would be radiated wherever the cables come above ground – regardless of whether the householder was a subscriber to the service or not. The RSGB regards PLT as a 'quick and dirty' solution with insufficient capacity to cope with future increases in demand.

Conclusion

It has long been recognised that radio interference from electrical equipment can travel significant distances along mains wiring. This effect has always been regarded as a nuisance and regulations have been introduced to control it. From the radio users' perspective, PLT amounts to a wholly unacceptable pollution of the electromagnetic environment by deliberately injecting radio frequency interference into electricity supply wiring. This would be contrary to EMC standards and regulations developed over more than 50 years.

If PLT is introduced, there are no practical mitigating measures that could be used to make a significant reduction in interference caused by signals leaking out. Relaxing the relevant EMC standards to accommodate PLT would be rather like abolishing clean air regulations to allow old car tyres to be burned for home heating! Although this would make use of a resource which is not currently used, it would also have an adverse environmental impact.

Note to Editors:

The RSGB represents licensed radio amateurs in the UK. For further information about EMC aspects of PLT in relation to amateur radio, please contact the RSGB EMC Committee c/o:

RSGB,
Lambda House,
Cranborne Road,
Potters Bar,
Herts.
EN6 3JE
Tel 01707 659015

Power Line Telecommunications

A briefing paper for EUROCOM by Hilary Claytonsmith, G4JKS

Background

Over the past three years the RSGB EMC Committee has been concerned with the emergence and trialing of HF mains signaling or Power Line Telecommunications (PLT). This type of system provides Internet facilities to homes using the underground low voltage distribution wiring from electricity sub-stations. The data system operates on the frequency slots 2.2-3.5 MHz and 4.2-5.8 MHz (see Press Release for more details). The exact method used to transmit the data to the households is shrouded in commercial confidentiality. The system is being trialled in the Manchester area of the UK where tests have been carried out to confirm that emissions from the electricity underground wiring are present and are quite considerable where the cables emerge above ground. The radiated emissions have been measured at 10m and found to be between 30 and 70 dB µV/m. It is feared that the emissions will be re-radiated from street furniture, lamp-
posts and, above all, from house wiring. This will have the effect of raising the HF noise floor so that reception of weak signals will be impossible in areas where this type of system is deployed. Because of the propagational characteristics, this interference may not be kept to the local area and may be propagated into Europe.

Standards

Unfortunately there are no standards which cover PLT. The company carrying out the trials (NORWEB) originally proposed modification to IEC 61000-3-8 to cover high frequency signaling. It has been discussed in CENELEC and CISPR. The Radiocommunications Agency (RA) has recently produced a draft MPT standard entitled "Radiation Limits and Measurement Standards"- Electromagnetic radiation from wired telecommunications systems operating in the frequency range 150 kHz to 30 MHz. As an interim measure the RA will be able to invoke the UK Wireless Telegraphy Act to close the system down if it is found to be causing interference.

Since the RSGB raised the issue of PLT with the RA three years ago a working group has been formed chaired by the RA which includes users of the spectrum below 30 MHz. These are the UK Ministry of Defence, the UK Home Office ministry, UK Government Communications Headquarters, the BBC, the UK Civil Aviation Authority, the UK Maritime and Coastguard Agency and radio amateurs (RSGB EMC Committee members). Others making up the group are electricity companies and NOR.WEB. Arising out of the first meeting of the working group came the formation of the "HF Users' group". This group was formed by the RSGB with the intention of ensuring that the other HF users were fully aware of the technical issue involved in the emergence of PLT and how these woula affect their establishments. In some cases they were not aware of the consequences. It was also considered that combining with those users who had
considerable influence would be of benefit in presenting our case as radio amateurs. This has proved to be true.

The RA has produced a document showing the use of the radio spectrum below 30 MHz. This can be downloaded from the Web at http://www.open.gov.uk/radiocom/rahome.htm.

One outcome of the HF Users' group was to carry out independent tests to try and find level of emissions which would be acceptable to all. The RSGB suggested 0 dBµV/m. This has since een accepted by the RA and the other users of the working group. However the actual emissions from the system are a long way away from that and it would be technically impossible to get anywhere near the limit required to enable interference-free co-existence with other users. The army carried out tests and the Civil Aviation Authority carried out flight trials - all reported unacceptable levels of interference.

Recent Developments

Commercial pressure was applied to try to force through acceptance of PLT. The RA have now decided to defer the issue to a committee of Government Ministers. Predictably this has now moved

from the technical to the political arena. Phrases such as "good for the economy", "good for jobs" are now being mentioned by the government. The people attending the meetings at this level are in the main not technically aware. As a result of the shift of emphasis, the RSGB EMC Committee has produced a briefing paper/Press Release which has been mailed to Members of Parliament, members of the House of Lords and other interested panties as well as the electronic and technical press. This process of education has brought about a favourable response with a deal of support being expressed.

During the last two years the RSGB EMC Committee has written a paper for the Wroclaw EMC Symposium and submitted a paper to the IARU Region 1 Conference on the threats to the HF spectrum from PLT. Regular information is given to the RSGB membership through the EMC Column in "RadCom" magazine and through the IARU Region 1 EMC Working Group Newsletter. The RSGB continues to work closely with the RA giving technical support when necessary. EMC Committee members always attend the Working Group meetings.

The future

It is thought that NOR.WEB has always intended to use the UK as a test bed before launching the system into Europe. It is believed that trials are taking place in Germany, the Netherlands and France and possibly Austria and Sweden. It is therefore suggested that National Societies should make contact (if they have not done so already !) with their PTTs to confirm this. Involving the other users of the spectrum below 30 MHz to ensure they are aware of the potential threats may help to provide a united front to prevent the spread of a technology which could destroy the lower HF spectrum for ever.

Hilary Claytonsmith, G4JKS

DARC Standards Surveillance Group 16.2.99
Hans-Joachim Brandt, DJ1ZB
Eichenweg 7
84160 Frontenhausen
Tel/FAX: 08732-1565
email: hajo.brandt.dj1zb@t-online.de

Informations available within DARC on "HF Mains Signalling" or "Power Line Communication", PLC

1. Power Line Communications

In general frequencies up to at least 20 Mhz will be used for PLC. A draft standard proposed by NORWEB for PLC, submitted to the EMC working group of the European Telecommunications Standards Institute (ETSI), is included in another annex of this email. It has been observed that many aspects of this draft standard, especially concerning the spectral density at h. f. of -43 dBm/Hz, can be found in several other publications on PLC.

In Berlin the local power line company BEWAG has conducted PLC trials, and the German Regulating Authority for Telecommunication and Post (RegTP) has measured the interference fieldstrengths. But no details on the installation of the PLC equipment and the resulting interference have been disclosed so far.

At Herrenberg, in the Stuttgart area, the local power company EnBW (Energie Baden-Wuerttemberg) has also started field trials. In this area, all mains supply cables are lying in the ground. Directly where the mains is fed into the house a PLC interface has been mounted from which a screened cable is leading to the computer modem in the house. It has also been said that the type of electricity power consumption counters in these houses were of an elder type which provides some choke effect to prevent the PLC energy from entering the house wiring. Two radio amateurs interested who do not live in that area have arranged some portable measuring actions.

In 100 meters distance to a house connected to PLC no interference could be detected in the frequency range 100 kHz to 10 Mhz when using a 12 meters long wire antenna hanging down from a balcony. In 10 meters distance from the same connected house, using a 12 meters long wire antenna 2 meters high, a broadband interfering signal could be received between 4650 kHz and 5450 kHz at S3 to S7. Directly before the house a vertical wire 1.5 meters long delivered an S3 signal also between 4650 kHz and 5450 kHz. EnBW has confirmed this to be the PLC carrier.

Concerning this installation the two radio amateurs only see problems to radio reception if there should be an interest in the tropic 60 meters broadcast band (or the new 5 Mhz radio amateur band the ARRL is striving for).

As EnBW seems to be very cooperative DARC has asked the radio amateurs also to conduct an immunity test to the PLC system by transmitting some r.f. energy in a fieldday manner from a parked car (from an RSGB report we know that only 3 watts from a dipole in 10 meters distance may interrupt PLC communication). However, the winter season with snowfall in Germany has prohibited this test so far.

DARC has received another report from a radio amateur who had the chance to borrow a so- called „PLC Demonstrator" from his company. This unit is said to have no licence so far, being not yet standardized, and may not operate on the PLC signal levels finally adopted. It has been set into operation at the DARC club station at Emmerich (Rhine), being plugged into an arbitrary power wall socket in the house. Interference received ranged from S6 to S7 on 10 meters up to S9+20 dB on 30 meters and 40 meters and still S9 on 80 meters. These rapports were made in a 2.4 kHz bandwidth and depending +/-6 dB on the choice of the power wall socket used in the house for the PLC Demonstrator. Concerning immunity the PLC system could easily be interrupted by 5 watts radiated power in the 40 meter to 30 meter range. When transmitting on 10 meters, however, even 100 watts just caused the PLC data rate to decrease by 20%. Regarded on a frequency analyzer the PLC signal was looking like a gaussian noise emission with many carriers inside, separated by 8 kHz.

When comparing the reports from Herrenberg and Emmerich it must be emphasized that the Emmerich scenario is following the present PLC advertising to show how simple PLC can be implemented and how easily it will work from any power wall socket. The Herrenberg installation, on the other hand, taking some care on the

radiation problem, should definitely be more expensive, but without avoiding all forseable problems for the radio amateur and short-wave listener.

2. xDSL installations

Data communication on twisted pair telephone lines (xDSL) has some advantages concerning radiation because this cable can be regarded as a symmetric line, capable of reducing radiation by about 30 dB depending on frequency. The whole h. f. range up to 30 Mhz may be used by xDSL which is said to be still in the developmental stage. The spectrum of standard ADSL (asymmetric digital subscriber line) will extend from low frequencies up to 1.1 Mhz and then drop to almost nil (-110 dBm/Hz) at 4.5 Mhz, according to a (100 pages) report to the ETSI EMC working group from Great Britain. Depending on the operator ADSL systems may employ different spectral densities of -60 dBm/Hz up to -34 dBm/Hz. Therefore reports on radiation problems may also differ.

However, when examining the xDSL literature and advertising, it must be emphasized that there are at least two different ADSL systems. The first and, from a technical standpoint, more correctly designed system is employing a splitter filter between telephone and ADSL, feeding up to 16 kHz for voice and ringing signal to the telephone and higher frequencies to the ADSL modem. The splitter filter is also maintaining the symmetry of the line, which is essential for low radiation from the cable. However, to avoid the additional cost of this filter, a splitterless solution has also been designed, but with some problems remaining for the parallel use of telephone and ADSL, and possibly affecting the impedance and symmetry of the line. Even CENELEC has noted this problem and its consequences to the radiation problem. When studying the advertisings it appears that, due to the cost of the splitter filter, this solution is being advertised for business applications with a data rate of up to 8 Mbit/s, whilst the splitterless solution is proposed for private use, without installation costs, and a data rate of 1.1 Mbit/s. Details may depend on the operator, as the techniques employed may also differ in detail, but in any case those ADSL systems creating more radiation problems than others may be of the splitterless type.

ADSL has been tested in Germany so far in an area belonging to the university of Muenster (Westfalia) and is due to be applied to field tests in several german major cities. About Muenster DARC has just received one report claiming no problems using a hand-held h. f. radio in residential areas of the students (possibly due to the splitter filter version of ADSL installed here) but terrible QRM in an operational room of the system. From other cities in Germany no reports have been received so far.

Proposed limits for PLC and xDSL radiation in Germany

The Regulating Authority for Telecommunication and Post in Germany (RegTP) recently has published the following limits for the interference fieldstrength of PLC and xDSL applications in Germany. These limits were open for comments and will be finally considered in a hearing to be held in early March 1999.

Translated extract from this publication:

“The interfering fieldstrength is measured according to valid EMC standards and the german measuring procedure RegTP 322 MV 05 “Measurement procedure for interfering field strengths of telecommunication equipment and cables in the frequency range 9 kHz to 3 GHz“.

frequency f (Mhz) in the range	Interfering fieldstrength limit (peak value) in 3 m distance dB(µV/m)
0,009 to 1	$40 - 20*\log_{10}(f/MHz)$
> 1 to 30	$40 - 8{,}8*\log_{10}(f/MHz)$
>30 to 1000	27 (1)
>1000 to 3000	40 (2)

Table 1: Limits for interfering fieldstrengths on telecommunication equipment and nets

(1) equivalent to a radiation power of 20 dBpW.
(2) equivalent to a radiation power of 33 dBpW.

This regime shall become the basis for coexistence between radio and cable telecommunications equipment and therefore will have great practical importance concerning new techniques such as power line communication and xDSL“.

Final comments

Calculations by DARC assume that xDSL services may have problems to comply with these limits even when employing a spectral density of -60 dBm/Hz only. Depending on the location of the antenna, the RegTP limits may also impair the noise-free reception of shortwave broadcast stations, for which a minimum usable fieldstrength of 40 dB(µV/m) and a minimum signal-to interference ratio of 26 dB has been set by ITU.

But PLC services, when using the spectral density given in the NORWEB standard of -43 dBm/Hz in the h. f. range, will far exceed the RegTP limits. Calculations have resulted in interference fieldstrengths of up to 80 dB(µV/m) in a 10 kHz bandwidth in 10 meters distance from the source. Reports from Great Britain obtained within ETSI are in the range of 60 dB(µV/m), with 70 dB/µV/m) at some sites. Therefore in Germany resistance of PLC operators against the RegTP limits is anticipated.

As even shortwave broadcast reception may be impaired when applying the RegTP limits, it will be obvious that also all low and medium signals typical for amateur radio may be covered by radiated noise from either PLC or xDSL sources. In amateur radio detectable signals may have fieldstrengths as low as -10 dB(µV/m) for CW and +5 dB(µV/m) for SSB. If once cities should be covered by xDSL and PLC installations, it might be possible to receive such low signals in the field only, far away from any wire line installations.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
18.08.1999

1. PLC

Power line and cable network communications are dangerously spreading.

In several countries (UK, Germany, The Netherlands, Belgium) more and more operators, often supported by politicians, are striving to use existing copper lines for high speed data transmission to end users. These new information transmitting techniques threaten radio broadcasting, amateur radio and many other services.

The topic has been discussed at the EUROCOM meeting of last June in Friedrichshafen (see Newsletter of 02.07.99). Hilary Claytonsmith, G4JKS reported her discussions with the UK authorities on the subject.

A possible way to stop this inconsiderate development is to call the attention of the European Parliament on the dangerous process now underway.

Appended is a letter to the Members of the European Parliament (with annex) that can be used by the member societies to alert their MEP (see Annex 1).

The text was drafted by Karl Voegele, DK9HU, Hans-Joachim Brandt, DJ1ZB and Mrs Ch. Volmer. Gaston Bertels, ON4WF translated the text into English and Don Beattie, G3OZF tidied it up. Hilary Claytonsmith, G4JKS added some remarks.

Would you be so kind to keep us informed of any steps undertaken and progress made.

2. DARC Comment to the R&TTE Directive

DARC Standards Group Chairman Ha-Jo Brandt, DJ1ZB submitted a note commenting the Annex 1, Paragraph 1 of the R1TTE Directive (see annex 2).

Attention is called on the need to maintain the licencing examinations at a sufficient level of technical knowledge, also for newcomers.

By excessively lowering the criteria, it would become more and more difficult to justify access of the amateur radio service to the scarce and much coveted spectrum.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annexes : 2

To the Members of the European Parliament

New Telecommunication Techniques on copper lines
- Pros do not outweigh contras. European Information Society endangered -
- National Security, Radio Broadcasting and other services under threat -

Ladies and Gentlemen,

New information transmitting techniques designed to boost the volume and the speed of data are being proposed for use in Europe. The slogan is "Internet on the mains".

It is intended that high speed data transmissions be provided to private and business end users on the existing copper lines used by electricity companies and cable television networks.

ADSL[1], VDSL[2] and PLC[3] are abbreviations for these new telecommunication systems. The users transmit data through wires used up till now only for telephone, TV and power. High speed data transmissions generate high radio frequencies up to 30 MHz. Thus the wires become antennas, radiating electromagnetic fields on these frequencies, just like a radio transmitter.

As this unwanted radiation takes place in the immediate environment of the population, the reception of existing radio services, whose frequencies are determined by international bandplanning, is disturbed or even rendered completely impossible. Long, medium and short waves broadcasting stations and low power radio stations, such as those of the amateur radio service, are denied any chance of being properly received. More importantly the range of frequencies used by military organisations (e.g. NATO) for security purposes will be adversely affected, as will frequencies used for safety of life services.

Licenced radio experimenters, members of the amateur radio service, are supporters of innovation and pursue the intelligent use of new techniques. Being in the forefront of modern techniques, amateur radio is an entry path for young people into technical jobs and also contributes to technical innovation and development. Therefore, the amateur radio service welcomes new developments of any kind, in so far as they are technically and scientifically justified and legally and socially acceptable.

By their technical skills radio amateurs, free from any pressure groups, are able to give warning of developments which may be against the national or public interest. The radio amateur service considers the above described telecommunication systems as already outdated because of their intrinsically limited datarate. Moreover, these systems can cause considerable interference to existing radio services.

Modern data transmission techniques centre around the use of optical fibre cables, with additional short distance microwave links to the users' houses. These techniques alone take into account growing datarates. Being future oriented they are economically justified.

ADSL, VDSL and especially PLC present severe technical, social, legal and economic shortcomings. The radio frequency spectrum is considered by all to be a precious and limited resource. Considerable portions of the spectrum, including those used for military, civil, intercontinental and broadcasting traffic, would become unusable over large areas of Europe. Such shortcomings are inconsistent with the shortlived benefits to the developing information society. Moreover, since copper wires radiate the signals of these datasystems, neighbours can also receive and eventually decode them.

EUROCOM, the European amateur radio societies working group of the International Amateur Radio Union (IARU), wishes to warn of three dangers that have not been put forward up till now in official

[1] ADSL = Asymmetric digital subscriber line (existing telephone lines are used)
[2] VDSL = Very high speed digital subscriber line (existing telephone lines are used)
[3] PLC = Power line communication (power lines are used)

forums. Our purpose is to avoid huge investments on a European scale in outmoded and potentially harmful developments.

These three points are

- **Considerable interference will be caused e.g. to broadcast reception and army and security communications. The inability to avoid electromagnetic interference, especially in the case of PLC, and an inadequate legal framework for resolving cases of interference are potential sources of social conflict;**

- **The freedom of information, active and passive, will be endangered by the expected interference. The very existence of broadcasting services, army and security data transmissions, emergency services, civil aviation and amateur radio (a non profit worldwide radio service for technical experimentation) are at stake;**

- **Possible eavesdropping on private data transmissions represent an uncontrollable invasion on privacy.**

The growing danger calls for urgent political measures on the European level to support the development of fibreglass networks instead of further allowing already obsolete techniques to proliferate.

The techical, economical, legal and social consequences of the latter are should be analysed, in order to alleviate the foreseeable problems due to the proposed introduction of these techniques, especially in densely populated areas.

For your convenience, more detailed information on this important matter is appended. We urge on you and your collegues in the European Parliament and in the parliamentary committees the need to defend the interests of the endangered radio services.

We would be delighted to meet you to explain further the many aspects of this issue, as well as the need for proper defence of the radio spectrum.

Yours sincerely,

Enc : Annex

Annex

EUROCOM's contribution on the risks and dangers of the propagation of obsolete telecommunication techniques

1. Interference

Providers and users of the new telecommunication techniques use existing cable networks. Nearly all these lines and cables suffer from insufficient shielding. The resulting unwanted radiation of electromagnetic energy, especially in the vicinity of the end users, transforms the lines into radio transmitters. With power lines (mains) the effects are dramatic.

All the radio services and appliances using the same frequencies are affected by this radiation. The interference is not a theoretical consequence of parallel frequency use: it has been proven in pilot projects.

Interference and compatibility problems with other cable networks and with domestic and entertainment electronic appliances can also be expected. The legal framework for dealing with the various aspects of this new form of interference is absent from national law on electromagnetic compatibility and will not be implemented soon. Civil claims and product liability proceedings are among the foreseeable consequences.

In our opinion, the interference from these data systems will extend over wide stretches of the frequency spectrum. The interference experienced in several European countries with television copper cable networks leads to the conclusion, that parallel use of terrestrial frequencies in cables will always cause compatibility problems. Moreover, this system is unable to satisfy the growing demand for higher datarates. Alternatives avoiding these problems and capable of considerably broader transmission bandwidths, to answer the rapidly growing communication and information exchange demand in Europe, exist, making use of lightconduction over a fibreglass cable network, combined with microwave links to the end user.

2. Freedom of information and freedom of radio broadcasting

The permit to operate such telecommunication systems on copper cable networks constitutes an unjustified offence against the freedom of information, active as well as passive, according to article 10 of the European Convention on the Human Rights.

This Convention is not limited to a set of ratified statements, it covers also the fundamental community rights within the European Union. The right of freedom of information garantees the right to access all free sources of information. This is a one of the foundations of democracy.

The parallel frequency use by the new data transmission systems ADSL, VDSL and especially PLC causes damages to radio broadcasting, emission as well as reception (listeners) and to the amateur radio service, which is also protected by the freedom of information in the sense of article 10 of the Human Rights Convention, as well as to other radio services. Broadcast bands are severely disturbed by the strong interference caused by ADSL, VDSL and PLC on long, medium and short waves. This will considerably limit the individual freedom of information from international and European sources. The freedom of information of foreign fellow citizens living in the European Union will be seriously harmed.

The harmful effects on radio services - threatening the very existence of broadcasting and amateur radio - cannot be justified since other and more appropriate techniques exist to achieve the goal, i.e. better and faster datatransmission. Fibreglass technology, as already shown, is technically and economically much more appropriate, especially in the long run.

The European Court of the Human Rights in Strasbourg has repeatedly insisted on the deep significance of the free access to information throughout Europe.

The Court has also pointed out, that a country cannot be satisfied by simply protecting the liberty of broadcasting against state influence. Instead, a positive position shall be adopted by insuring access to broadcasting for all existing opinions, thus offering exhaustive information.

This position of the European Court is a clear indication, that a limitation of the freedom of information and broadcasting by allowing datatransmission on copper cables cannot be justified, the broadcasting services being finally threatened in their very existence.

Amateur radio, a duly by the international radio regulations recognized and protected radio service, is threatened immediately, no minimum standards being defined for this experimental service.

3. Data protection

Moreover, it has to be considered, that the unwanted radiation will enable the interception and the use of personal data transmitted by the new ADSL, VDSL and PLC techniques. This points towards data protection problems. An efficient legal framework for the protection of the Union citizen does not yet exist in these matters.

4. Summary

Considering the seriously increasing danger of this new technology, political measures are necessary to support the introduction of fibreglass techniques and to discourage the development of already obsolete methods.

Technical, economical, legal and social consequences should be examined, to alleviate the problems that will rise in regions where the introduction of the obsolete techniques is already going on.

Among these measures, only frequencies that do not interfere with broadcasting, military, security, cvil aviation, safety of life services and amateur radio should be authorized. The unwanted radiation field strengths for data transmission should be lowered considerably for the protection of the radio services and other radio applications. Moreover, unwanted radiation standards should be developed for telecommunication facilities and networks to protect the radio services and other radio applications.

Radio waves ignore country borders and the introduction of the new techniques threatens the whole of Europe. Therefore, in the name of all parties concerned, we call for a regulation at the European level. In restricted circles of the CEPT, NATO and the European Broadcasting Union, the risks of data transmission on the mains have already been questioned.

DARC Standards Group
Hans-Joachim Brandt, DJ1ZB
Eichenweg 7
84160 Frontenhausen
Tel/FAX: 08732-1565
email: hajo.brandt.dj1zb@t-online.de

July 8th, 1999

DARC Comment to the EUROCOM WG Report 1999 and the R&TTE Directive Annex 1, Paragraph 1.

All EUROCOM radio amateur societies and their members will be pleased with this regulation which enables us to exercise our hobby in the same way we were accustomed to do so in previous decades. But as our hobby is embedded in an environment of an ever increasing number of other electronic and radio equipment, we should never forget the reasoning behind this relaxation.

The beginning of Annex 1 reads as follows:

Equipment not covered by this Directive as referred to in Article 1(4):

1. "Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.

Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially availble equipment."

The first sentence exempting homebrew equipment could be achieved rather easily, because the R&TTE Directive is dealing with the access of goods to the market only. Under the EMC Directive, however, kits were regarded as commercially available, at least in some countries, and the modification of commercial equipment could violate its presumption of conformity to the Directive.

It has been the knowledge required to obtain a radio amateur licence, including sufficient know-how in EMC, which has convinced the rapporteur of the R&TTE Directive to follow the petition of the EUROCOM Chairman and to amend Annex 1 to the present status, and it is a sucess for amateur radio that this reasoning could be preserved in all following considerations between the European Parliament and the Commission. In a comment to the present german EMC law radio amateurs are also included into the group of "persons with expertise in EMC".

There is a noticeable move in IARU to ease the access to amateur radio, to increase its attractivity and to compensate for the loss of members. When discussing new licence regimes and newcomer licences, however, we should remain very careful not to lower the requirements below a certain level, because this may deprive us of freedoms we so far have regarded as self-evident for amateur radio but which may no longer be self-evident for the environment in which we live today.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
13.09.1999

Digital Power Line Technology

United Utilities to close joint venture with Nortel networks

In our Newsletter of 18.08.1999 we draw your attention on the dangerously spreading Digital Power Line technology.

EUROCOM's informative letter to the Members of the European Parliament (with annex) has already been addressed to some MEP and will also be presented to the new Commissioner Erkki Liikanen, in charge of Enterprise and Information Society (formerly Commission for Industry).

The good news is, that Nortel networks, the promotor of this technology, will no longer be supported by United Utilities, UK for the development of digital power line communications.

Appended is a newsletter of Hilary Claytonsmith, G4JKS, President RSGB, telling the efforts of the RSGB EMC Committee over the last three years to counter the plans to roll out in the UK a very spectrum polluting form of telecommunications technology.

We can take for sure, that the latest British development will influence the issues in other countries such as the Netherlands, France and Germany.

Nevertheless, further action is still needed.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

Annex : 1

Digital Powerline Technology (DPL)

Over the last three years, the RSGB EMC Committee has been involved in discussions with the Radiocommunications Agency (RA) and users of the HF spectrum to counter plans to roll out a form of telecommunications technology which allows high speed data to be sent over existing electricity household wiring. These users included the UK Ministry of Defence, Home Office, BBC World Service, Government Communications Headquarters and the Civil Aviation Authority.

The Committee has worked in close co-operation with the RA at a technical level. It has assisted in tests which showed that emissions from such a system, if it were to be deployed, would contribute to the raising of the noise floor to a level which would make reception of weak signals below 30 MHz virtually impossible.

The whole issue of DPL was raised by G4JKS in a paper at the Wroclaw EMC Symposium, in the IARU Region 1 EMC WG meetings and in the EUROCOM Committee, culminating in a paper being written for the IARU Region 1 Conference in 1999. NorWeb, the company promoting this technology, was not just looking at the UK, but was planning to spread into continental Europe, with trials being run in Holland, France and Germany.

Discussions moved from the technical level into the political arena in early 1999. This was countered by the RSGB EMC Committee when a briefing paper and covering letter from the President was sent to selected Members of Parliament. Questions (prepared by the EMCC) were raised in the House of Lords, with the replies appearing in Hansard.

It was extremely gratifying therefore, on 7th September 1999, to receive the news that United Utilities had announced to the London Stock Exchange, their intention to close the Nor.Web digital power line joint venture with Nortel networks, a venture which reputedly cost United Utilities £ 5.9M in the last year alone. The official line for the cessation was stated as "despite the proven ability of the DPL technology, the projected volumes and profitability within the competitive broadband access market are considered to be insufficient to justify the investment required. Accordingly the partners have decided to discontinue the project".

The unofficial line may be somewhat different. The technology was fast becoming out of date, with other systems employing fibre optic cables and copper 'phone loops being successfully developed. Technical difficulties were also being experienced in achieving the emission limits demanded of such a system. On top of which, who can tell what effect the relentless lobbying by the RSGB EMC Committee and the firm stance taken by the RA has had on the whole project ?

We must not be complacent, however, as DPL technology does work, and other companies may be working in the wings to take over where Nor.Web have left off. Meanwhile, Norweb Telecomms is continuing to develop another type of network using Dense Wave Division Multiplexing technology, which will offer a broadband communications service to business customers.

9th September 1999

Hilary Claytonsmith, G4JKS
President RSGB

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

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EUROCOM Newsletter
15.12.1999

Preparing for Enlargement

1. Helsinki European Council meeting

The European Council met in Helsinki on 10 and 11 December 1999. It has taken a number of decisions marking a new stage in the enlargement process.

The European Council reaffirms the inclusive nature of the accession process, which now comprises **13 candidate States** within a single framework. The candidate States are participating in the accession process on an equal footing.

The Union has made a firm political commitment to make every effort to complete the Intergovernmental Conference on institutional reform by December 2000, to be followed by ratification.

The Intergovernmental Conference will examine the size and composition of the Commission, the weighting of votes in the Council and the possible extension of qualified majority voting in the Council, as well as other necessary amendments to the Treaties.

After ratification of the results of that Conference the Union should be in a position to welcome new Member States from the end of 2002 as soon as they have demonstrated their ability to assume the obligations of membership and once the negociating process has been successfully completed.

2. Progress in accession negotiations

The European Council notes with satisfaction the substantive work undertaken and progress which has been achieved in accession negotiations with **Cyprus, Hungary, Poland, Estonia,** the **Czech Republic** and **Slovenia**.

3. New candidates

The European Council has decided to convene bilateral intergovernmental conferences in February 2000 to begin negotiations with **Romania, Slovakia, Latvia, Lithuania, Bulgary** and **Malta** on the conditions for their entry into the Union and the ensuing Treaty adjustments.

Moreover, **Turkey** is a candidate State destined to join the Union on the basis of the same criteria as applied to the other candidate States. Turkey will also have the opportunity to participate in Community programmes and agencies and in meetings between candidate States and the Union in the context of the accession process.

4. Invitation to join the EUROCOM working group

We heartily invite the IARU member societies of the 13 candidate States to nominate a delegate to the EUROCOM working group.

For practical reasons, the delegate should have e-mail facilities, most of the EUROCOM work being done by correspondence.

Appended are the Terms of Reference of the EUROCOM sub-regional working group.

5. Season's Greetings

To you and yours my very best wishes for a Happy New Year !

73.

Gaston Bertels, ON4WF
EUROCOM WG Chairman

Annex : 1

Annex

TERMS OF REFERENCE FOR THE IARU REGION 1
SUB-REGIONAL EUROPEAN COMMUNITY WORKING GROUP
(EUROCOM)

1. The EUROCOM sub-regional Working Group (SWG) is a specialised body of the IARU Region 1. It acts under the provisions of the IARU Region 1 Constitution and Bye-Laws.

2. The EUROCOM SWG will maintain contact with the European Commission, the Economic and Social Committee of the EEC and the European Parliament with the aim of

   a. Identifying the areas of concern in European legislation regarding Amateur Radio;

   b. Circulating information on these areas of concern to the members of the SWG as well as to the Secretary of IARU Region 1;

   c. Communicating those items of information which are considered to be of importance to Amateur Radio and which are not being acted upon within IARU Region 1 member societies via the SWG convenor to the European Community for their consideration.

3. The Eurocom SWG will advise the General Conferences of IARU Region 1 and in between Conferences the Executive Committee of IARU Region 1 on

   a. Optimum policies for dealing with current and future European Community legislation;

   b. Opportunities for acquiring support from the European Community for the development of Amateur Radio.

4. The work of the EUROCOM SWG shall be carried out mainly by correspondence. If it is deemed necessary by the Chairman of the SWG a meeting may be convened after approval of and in consultation with the Executive Committee of IARU Region 1.

5. The Chairman of the EUROCOM SWG shall be appointed at each triannual General Conference and shall act according to the procedures described in the IARU Region 1 Bye-Laws. He shall attend the IARU Region 1 General Conferences and shall report annually to the IARU Region 1 Executive Committee and to a General Conference. His expenses will be re-imbursed according to articles B.3.25 and B.3.28 of the IARU Region 1 Bye-Laws.

Revision adopted at EC meeting Hoofddorp, Sept. 1990
paOqc/eurocom.rpt/November 1990

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 - Fax: +32.2.771.49.89 - E-Mail : gaston.bertels @ village.uunet.be

Brussels, 26 May 1999

EUROCOM
Sub-Regional Working Group
Chairmans Report

Summary

European legislation affecting the Amateur Radio service in the Community has made further progress recently.

The R&TTE Directive has been finalized, adopted and promulgated. Our efforts for preserving Amateur Radio homebrewing were successfull.

Meanwhile, another threat has appeared : limitation of exposure to electromagnetic fields (EMF) to unacceptable values. Action has been undertaken succesfully against the inconsiderate vues of some MEP.

Moreover, the European Commission issued a Green Paper on Radio Spectrum Policy, without even mentioning the Amateur Radio service. In its Resolution on this Green Paper, the European Parliament adopted the amendments prepared by EUROCOM, urging the Commission to secure spectrum for "non-profit applications of public interest, such as the Amateur Radio service".

R&TTE Directive

Under the new name "Radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity", the CTE draft Directive has called for intense lobbying by the EUROCOM WG.

The first goal was in sight when the new draft proposal (RTTE) stated in **Annex I, (a) : Equipment not covered by the directive : "Radio Equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union radio regulations unless the equipment is available commercialy".**

The Commission considered Kits as commercial equipment. This was clearly stated in the answer of Commissionar Bangemann of 22.11.95 to the parliamentary question put by James Provan (PPE) to the Commission (Official Journal of 21.2.1996 Nr. C 51/23).

The EUROCOM Chairman submitted a paper on the very nature of Kits for amateur radio to DGXIII and to Mrs Mel Read, MEP, Rapporteur of the parliamentary Committee in charge of the Directive.

The Rapporteur amended Annex I, par 1, by adding the following : **"Kits of spare parts to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment".**

Both texts have been adopted by the European Parliament and have been preserved during the conciliation process between the Commission and the Parliament which ended December 8, 1998.

The R&TTE Directive has been signed March 9, 1999 by the president of the European Parliament and by the president of the Council and published in the Official Journal of the European Community (7.4.1999). Our two main objectives (home made equipment, kits and modified commercial equipment)

have been achieved and we are also in a good position to reach the third one by participating to the rulemaking for commercial equipment.

Implementation of the R&TTE Directive

The European Commission has appointed ETSI (the European Telecommunications Standards Institute) to prepare guidelines to be used by the Telecommunication Conformity and Market Surveillance Committee (TCAM), a body created by the Directive (article 13) to assist the European Commission in its decisions. Among these are the relevant harmonized standards for telecommunication equipment, to comply with the essential requirements of the R&TTE Directive.

ETSI has set up a special task group for this purpose (TG6). DARC is full member of ETSI (as a qualified "User") and has a permanent representative within ETSI, Ha-Jo Brandt, DJ1ZB who is a member of TG6. This group often had their meetings in the European Commission DGXIII office in Brussels and DARC has introduced the EUROCOM Chairman, who lives in Brussels, as its second representative in TG6.

DJ1ZB and ON4WF have presented several papers to TG6 to draw the attention on the specific needs of the amateur service, as far as their commercial equipment is concerned. The goal is to develop harmonized standards for this equipment with appropriate constraints for the manufacturers in assessing conformity to the essential requirements of the Directive. Once again, the amateur service is a unique category in the constellation of telecommunications.

Exposure to EMF

In August 1997, the US FCC has issued an bulletin of the Office of Engineering and Technology (OET Bulletin 65, Edition 97-01) on the limitation of electromagnetic fields in public areas which, in its Supplement B, is also affecting Amateur Radio.

In Germany, a decree (306/97 issued by the end of 1997) sets even lower EMF limits.

In April 1998, DARC asked the EUROCOM WG to circulate a questionnaire on national regulations concerning EMF. This topic was also debated during the EUROCOM WG meeting in Friedrichshafen, june 1998. The results were published in the EUROCOM Newsletter of 10/07/1998.

On 11/06/98, Directorate General V (located in Luxemburg) presented a proposal for a Council Recommendation on the limitation of exposure of the general public to EMF (0 Hz - 300 GHz). This Recommendation proposes basic restrictions and reference levels based on the advice of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Only the proven thermal effects of EMF on the human body are taken into account. In the frequency range 10 - 400 MHz, the maximum permissible exposure level would be 28 V/m.

This proposal (Com(1998)0268) was submitted to the European Parliament and examined by the Parliamentary Committee on the Environment, Public Health and Consumer Protection (ENVI Committee).

Rapporteur Gianni Tamino, MEP issued a draft Report on 6 November 1998 (PE 228.570). This Report urged the Commission to lay down much lower limits (1 V/m instead of 28 V/m), to be achieved over a ten year period. The Tamino Report took into account the still disputed long-term non-thermal effects of EMF.

EUROCOM alerted the member societies as well as the representatives of telecommunication administrations, public network operators and manufacturers which have representatives in the ETSI ERM_TG6 working group.

Several societies alerted their national authorities. DARC addressed a document to the german MEP. This document was translated into French and into English and circulated by EUROCOM.

URE alerted MEP Fernando Fernández Martín, EA8AK, their past president, who offered his assistance to the EUROCOM Chairman. A close cooperation is now going on.

Action was undertaken by EA8AK to inform the MEP of the major political groups on the technical, economical and social consequences of very low EMF limits. Februari 18, 1999, the Parliamentary Committee adopted the Report, but rejected the very low exposure limits, insisting on a uniform Community framework based on the advise of the ICNIRP.

March 10, 1999, the European Parliament approved the Proposal for a Council Recommendation. The EP insists on inviting the Member States to lay down minimum distances from public buildings, housing and workplaces for the siting of high-voltage transmission lines, radar equipment and broadcasting transmitters, including cellular phone base stations. The recommended safety distances should be displayed on the product concerned, especially mobile telephones.

The Member States should enhance knowledge about the health effects of EMF, taking into account research recommendations from the widest possible range of sources, including the research carried out by many military experts throughout the world.

Moreover, the EP wishes the Council to invite the Commission to submit a proposal for the revision of three other Directives :

- 90/270/EEC on the minimum safety and health requirements for work with screen equipment
- 73/23/EEC and 92/75/EEC on electrical equipment capable of producing EMF (Low Voltage Directive).

If the LVD were to be amended to cover voltages below 50 V, we might face another threat.

Anyhow, the debate on exposure to EMF is still in an early stage. It is to be expected, that it will go on for years. Permanent surveillance and considerate action by the EUROCOM WG is highly desirable.

Green Paper on the European Radio Spectrum Policy

End of 1998, the European Commission (DGXIII) issued a Green Paper on the European Radio Spectrum Policy (COM(98)0596), on which all interested parties were invited to comment.

The 5 major issues on which the Commission requested comments are :
- Strategic planning of the use of radio frequencies
- Harmonisation of radio spectrum allocation
- Radio spectrum assignment and licensing
- Radio equipment and standards
- The institutional framework for radio spectrum co-ordination

The various types of radio applications (not exhaustive) are summarized in 5 sectors and activities :
- Telecommunications
- Broadcasting
- Transport
- Government
- R&D (such as Earth observation and Radio astronomy)

Since 1994, a memory of understanding exists between the Commission and the CEPT. In its role as observer in ITU/WRC and councelor to CEPT, the European Community seeks to ensure that its interests are appropriately represented in these bodies.

The European Commission apparently seeks to extend its power as a rulemaker to radio spectrum matters as a means of developping trade and industry within the Community.

During the public consultation period, the Commission organised three meetings in Brussels with the aim to initiate a wide debate on radio spectrum policy for the European Union.

- On 24 February 1999, a first public consultation meeting was held with industry (individual companies).

- On 17 March 1999, a second public consultation meeting took place for which **associations/representative organisations** were invited.

- On 30 March 1999, a third consultation meeting was held with the Member States/regulatory authorities. The Member States as well as a representation of CEPT were welcomed to attend the first two meetings as observer.

The EUROCOM Chairman asked for input from the Societies to answer the Commission's invitation for a contribution.

SSA submitted a paper with arguments to develop in our response to the Commission. We thank Sigge, SM5KUX for this contribution.

DARC also prepared a paper to be presented to the Commission. Many thanks to DARC.

EUROCOM Chairman globalised the views of the Amateur Radio service on the proposed Radio Spectrum policy within the European Union in a document presented to the Commission.

Meanwhile, EUROCOM participated to the consulation meeting on the Green Paper, organised by the Commission, which took place in Brussels on 17 March 1999. Our delegation was four strong : Hilary Claytonsmith, G4JKS, RSGB President, Peter Kirby, G0TWW, RSGB General Manager, Pierre Cornelis, ON7PC, UBA Board Member and Gaston Bertels, ON4WF, EUROCOM Chairman.

Among the major discussion items, the Commission insisted on the advantages of frequency auctionning, but this idea was rejected by most of the participants. Frequency harmonising was also reviewed but many objections were raised. On the other hand, the assembly supported the idea of a better co-ordination on radio spectrum issues within the Union, as far as international representation is concerned (WRC's). This could lead to a European Union's institutional framework for radio spectrum co-ordination.

The EUROCOM Chairman presented the Amateur Radio service to the participants, insisting on the official status of our service, a legal licence based on a technical examination, self-training and experimentation, communication potential during catastrophies, etc. He suggested that the Amateur Radio service be housed under the category Research and Development, extended to applications of public interest.

The Green Paper was also examined by the European Parliament. The Parliamentary Committee on Economic and Monetary Affairs and Industrial Policy (EMAC) prepared a Report to the EP, bearing a motion for a Resolution. The EUROCOM Chairman prepared an amendment to this Report and M. Fernando Fernández-Martín, MEP (EA8AK), submitted it to Rapporteur M. Felipe Camisón Asensio who accepted it. EMAC voted the drafted motion and the Parliament adopted the Resolution on May 4, 1999, with the amendment "calling for securing the spectrum for Research, Science and **non-profit applications of public interest, such the Amateur Radio service**".

Further development of the European Commission's initiatives in the domain of spectrum management is to be monitored carefully.

CPG

The European Radiocommunications Committee (ERC) set up a Conference Preparatory Group (CPG) to identify priorities, in order to prepare a common European programme for WRC-2000.

Two consultation meetings were held in Brussels (24 - 25 June and 21 - 22 September 1998).

The EUROCOM WG Chairman participated and reported.

ERC is supporting the UMTS project (Universal Mobile Telecommunication System). Endangered Amateur Radio bands might be 1.2, 2.3 and 10 GHz.

HF Mains Signalling

RSGB reported on "HF Mains Signalling". This is a bi-directional cable system transmitting and receiving data, using radio frequencies to and from 'direct to line' connected terminals.

Experiments in the UK show that much of the HF spectrum would become permanently unusable for the amateur service if such a system were used commercially.

Member societies are invited to report on any initiative of any operators in this field. RSGB, VERON and DARC already reported.

EUROCOM WG activity

In the last three years, the European institutions initiated several measures with an impact on the Amateur Radio service, calling for appropriate action by the EUROCOM WG.

The circulation of EUROCOM Newsletters has been a permanent effort and has fostered the interest of the member societies in the European issues.

EUROCOM Newsletters are not issued periodically, but rather whenever an event occurs. The purpose is to inform the societies and to call for attention or for action. Their numbers reflect the increasing activity :

1997 : 5 Newsletters
1998 : 8 Newsletters
1999 : 11 Newsletters (till May 1999)

It is to be expected, that this trend will continue, calling for even more efforts from the Amateur Radio community.

Thanks

The EUROCOM WG Chairman thanks the member societies and especially the correspondents who contributed efficiently to the common efforts for the defense of the Amateur Radio service within the European Union.

We are especially gratefull to DARC for hosting the yearly EUROCOM WG meeting in Friedrichshafen.

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTERS

1998

November 1999

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
11.12.1998

R&TTE Directive - Conciliation - Agreement found

In our previous Newsletter of 4.11.1998, we announced that the European Council had raised questions about some of the amendments, voted by the EP on the text of the R&TTE Directive in second reading. In accordance with the Treaty, a conciliation procedure was initiated between the Council, the Commission and the Parliament.

An agreement was found on R&TTE at the conciliation Committee on 8 December. Attached is a provisional document showing the agreed text where it relates to EP's Amendments.

Agreement was reached on amendment 16, without any modification:

Annex I(1), 2nd subparagraph (new)

Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

ETSI OCG TG6 meetings

A subgroup of TG6 met in Brussels on 5 and 6 November 1998 to produce a list of technical criteria, relevant for classifying radio equipment in suitable groups for compliance with the essential requirements of R&TTE. ON4WF participated and submitted a document.

The purpose of this document was to make it clear, that the very nature of the amateur service asks for very liberal criteria, since the users are licenced experimenters, responsible for the way they use the spectrum segments allocated to their service.

The 4th meeting of the TG6 working group was held in Brussels. DJ1ZB and ON4WF participated.The group concentrated on the work programme.

Incidentally, it was suggested that amateur radio equipment should be put in a separate group of technical requirements.

DG1ZB and ON4WF are now preparing a document to sustain this position.

73. Gaston, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
4.11.1998

R&TTE Directive - Conciliation

After the adoption, in second reading, of a series of amendments to the draft R&TTE Directive by the EP, the UK raised some objections against some of these amendments.

Consequently, it was decided, last week, to initiate a conciliation procedure, in accordance with the Treaty.

This procedure will delay the adoption of the R&TTE Directive by a two or three months.

Amendment 16 on kits and modified commercial equipment for amateurs, adopted by the EP, is not at all under discussion.

Moreover, the date of installation of the TCAM (Telecommunication Conformity Assessment and Market surveillance committee) remains unchanged : 1 March 1999.

ETSI TG6 meetings

The third meeting of the TG6 working group went on today in Brussels.

We made progress in defining the procedures to develop technical standards for the different classes of telecommunication equipment, in accordance with the R&TTE Directive.

An initial classification of radio system types into groups, according to similarity of essential requirements, has been set up. Among 11 groups, amateur equipment is a distinct one.

TG6 meets now on a monthly schedule, already fixed till March 1999.

73. Gaston, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
14.10.1998

FLASH

R&TTE Directive adopted by the European Parliament

On Tuesday 6 October 1998, the European Parliament has approved the recommendation of Mrs Mel Read, MEP, presented on behalf of the Commission on Economic and Monetary Affairs and Industrial Policy, to adopt the amended Common Position of the European Parliament and the Council on the R&TTE Directive.

Annex I, 1 bearing exemption of home made amateur radio equipment, as well as kits of spare parts to be assembled by radio amateurs and modified commercial equipment, has been adopted.

Introducing her proposal to the plenary session of the European Parliament, Mrs Read said :

„ … The Commission has also properly included radio equipment as part of the remit of this directive. Again, I think that is perfectly proper. I was lobbied in the early stages of the first reading on behalf of radio amateurs who were fearful that their own activities could be affected by this, but they are now well on the way to being reassured about that. “

Mr Bangemann, member of the European Commission (DGXIII) said :

„ … The importance of this directive can be appreciated considering that it replaces two former directives as well as about 1.500 national regulations. This means, that our approach will get rid of a lot of bureaucratie and I am sure that this alone will improve the market. “

Presently, The R&TTE Directive is ready for approval by the European Council.

73. Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
24.09.1998

R&TTE Directive

1. Draft Recommendation for second reading : Amendments by Parliament

In our previous Newsletter (03.09.98), we announced that Mrs Imelda Read, MEP, Rapporteur of the Committee on Economic and Monetary Affairs and Industrial Policy, in charge of this Directive, published a draft decision and draft amendments to be adopted by the Parliamentary Committee.

The Committee has adopted the draft decision unanimously op 23 September 1998.

Amendment 16 states :

Common position of the Council	Amendments by Parliament
(Amendment 16) Annex I - par. 1	
EQUIPMENT NOT COVERED BY THIS DIRECTIVE AS REFERRED TO IN ARTICLE 1(4)	
1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.	1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially. Kits of spare parts to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.

In the Explanatory Statement to this Draft Decision, the amendments suggested by the Rapporteur are said to be aimed at improving the proposal in several areas, including **"the specific situation of the radio amateurs".**

2. Next steps

The recommendation for second reading was tabled on 24 September 1998.

The deadline for tabling amendments to the common position or proposals for declarations of intended rejection will be indicated in the draft agenda for the relevant part-session of the European Parliament.

3. ETSI/OCG TG6 (Operational Co-ordination Group)

As announced in the EUROCOM Newsletter of 31.07.1998, the second meeting of the ETSI task group TG6 was held in Brussels on 2 September 1998.

These are the draft Terms of Reference of TG6 :

DRAFT TERMS OF REFERENCE

Reports to: **OCG (formerly TC ERM)**

Advises progress to: **ETSI Board, all concerned ETSI TCs and EPs**

Objectives

The task group shall examine the implications of the R&TTE Directive across all the ETSI community. This comprises actions to:

1. identify the most concerned Technical Bodies within ETSI; co-ordinate and motivate them to evaluate the impact of the R&TTE Directive in ETSI;
2. propose how the essential requirements as defined by the EC may be met by means of Harmonised Standards, in collaboration with the Commission Services, CEPT-ERC, CENELEC and other organisations as required,
3. offer guidelines for drafting harmonised standards under the terms of the R&TTE Directive,
4. assist the Commission Services in preparing a draft mandate on CEN/CENELEC/ETSI to support the new Directive,
5. draft an outline work programme in the form of an ETSI Technical Guide for approval by the ETSI membership.

The overall ETSI goal is to ensure that the smooth transition to the new regulatory regime shall not be disrupted by standards issues.

At the second meeting (TG6#2), a subgroup was set up to draft guidelines for the creation of Harmonized Standards. This subgroup will meet in the premises of Motorola, Slough, UK, on 2 October 1998.

The next meeting (TG6#3) will be on 5 November 1998 in Brussels. EUROCOM Chairman ON4WF will participate on behalf of DARC and the Amateur Radio Service.

4. CEPT/CPG and European Commission Maritime Workshop

In the EUROCOM Newsletter of 10.07.1998 we reported on the CEPT/CPG consultation meeting held in Brussels on 24-25 June 1998.

The CEPT/CPG met again in Brussels on 21-22 September 1998. This was a workshop on Maritime issues, conducted by Krzysztof Slomczynski (SP5HS).

Different aspects of maritime radiocommunications were examined :
- GMDSS : General Maritime Distress and Safety Services
- Radiodetermination
- Operational communication needs for ships
- Seafarers and passengers radiocommunications
-Telemedicine
- VHF ship-ship and ship-shore communications
- Satellite communications : INMARSAT, IRIDIUM, GLOBAL STAR, etc.

There was a discussion about VHF (FM 25 kHz channels) to go digital. This would imply more spectrum requirements. The cost investment and the transition time needed (several years) seem to be prohibitive. GSM is now also used for nearby ship-shore communications.

There does not seem to be any special threat on amateur radio frequencies on behalf of the maritime service.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Fax: +32.2.771.49.89 Email: gaston.bertels@village.uunet.be

EUROCOM Newsletter
03.09.1998

R&TTE Directive

1. Draft Recommendation for second reading : Amendments by Parliament

In our previous Newsletter (31.07.98), we announced that the amended draft of the R&TTE Directive has been submitted by the Commission to the European Parliament in second reading.

We submitted a paper to Mrs Imelda Read, MEP, Rapporteur of the Committee on Economic and Monetary Affairs and Industrial Policy, in charge of this Directive, pleading for commercial kits to be exempted.

On 2 September 1998, the Rapporteur published a draft decision and draft amendments to be adopted by the Parliamentary Committee.

Amendment 17 states :

Common position of the Council	Amendments by Parliament
(Amendment 17) Annex I - par. 1 EQUIPMENT NOT COVERED BY THIS DIRECTIVE AS REFERRED TO IN ARTICLE 1(4)	
1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.	1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially. <u>Kits of spare parts to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.</u>

2. Next steps

Very soon, the Parliamentary Committee will have to vote on the drafted amendments. The European Parliament will have to vote in plenary session. At last, the European Council will have to definitively adopt the Directive. The R&TTE Directive will probably be adopted by the end of 1998.

Mr Mark Bogers (DGXIII), who supported our plea in favour of the exemption of commercial kits, told me that the amendment of Annex I - par.1 has a fair chance to be adopted.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
31.07.1998

R&TTE Directive

1. Common position adopted by the Council on 8 June 1998

The European Council has adopted a common position with a view on adopting the R&TTE Directive.

The text of the amended draft has been published in the Official Journal of the European Communities of 20.7.98, pages C227/37 – C227/59.

The amended draft is now submitted to the Parliament in second reading.

You can retrieve the text in pdf-format from the following website :

http://www.tapc.org.uk/document/Rtte_698.pdf

2. Home built equipment out of scope

ANNEX I of the amended draft states :

EQUIPMENT NOT COVERED BY THIS DIRECTIVE AS REFERRED TO IN ARTICLE 1(4)

1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.

3. Kits

Up till now, the Commission has considered commercial kits as pieces of equipment. This is clearly stated in the answer of Commissioner Bangemann of 22.11.95 to the parliamentary question put by James Provan (PPE) to the Commission (Official Journal of 21.2.296 Nr. C 51/23).

I have written a paper about commercial kits for the amateur service (see texte appended).

I have submitted this paper to Mark Bogers (DGXIII) as well as to Mrs Mel Read (MEP).

Mark Bogers told me that he agrees with my argumentation and suggested to address the problem to Mrs Read, MEP.

We shall still hope, that the Parliament will amend ANNEX I, article 1 by clearly stating that „ commercially available kits of spare parts to be assembled by radio amateurs and commercial equipment modified by radio amateurs are not covered by this Directive “.

4. Plan for the implementation of the R&TTE Directive

It is expected that the Directive, after having gone through second reading in the European Parliament and the Council, will be adopted by the end of 1998 and will come into force around the beginning of 2000.

The Commission Services intend to call for the TCAM, the committee set-up by the Directive, to start meeting shortly after the adoption of the Directive, i.e. by the beginning of 1999. In order for the Commission to be in a position to present to the TCAM a number of draft measures for consultation, it is deemed appropriate to start informal discussions on the practical application of the Directive with the concerned parties.

A steering group has been set up and a number of working groups are involved. All of these groups will be dissolved once the TCAM becomes operational, unless it is felt at that time that they would still be of some help.

The following groups were established :

- Radio equipment classes
- Interface notification
- Essential requirements
- Surveillance
- ETSI (co-ordination ERM TG6)

5. ETSI/TC ERM TG6

The Commission has asked ETSI to develop guidelines for the drafting of harmonised standards. ETSI has set up a special working group : the Technical Group 6 (TG6).

The Chairman of TG6 is Tim Cull (Motorola).

TG6 met for the first time on 13 July 1998 in Brussels.

DARC is full member of ETSI, as user. Ha-Jo Brandt, DJ1ZB the DARC delegate to ETSI, asked ON4WF to represent DARC at this meeting.

At this first meeting of TG6, Mark Bogers presented the R&TTE Directive. The terms of reference of TG6 were examined and amended :

1. propose how the essential requirements as defined by the Commission may be met by means of harmonised standards applicable to different equipment classes, in collaboration with CEPT-ERC, CENELEC and the Commission Services as required,
2. offer guidelines for drafting harmonised standards under the terms of the R&TTE Directive,
3. assist the Commission Services in preparing a draft mandate on CEN/CENELEC/ETSI to support the new Directive,
4. draft an outline work programme in the form of an ETSI Technical Guide for approval by the ETSI membership.

Several suggestions were made about the way to determine different equipment classes. One suggestion allocated a separate class for amateur radio equipment. The proposals will be emailed to the Chairman. A decision will be taken at the next meeting.

At the next meeting, small working groups will be set up within TG6, each being in charge of proposing harmonised standards for a defined class of equipment.

The next meeting will be on Wednesday 2 september 1998 at 10.00 till 18.00, probably in Brussels.

6. Suggestions welcome

TG6 will have to work very fast :

- Interim Report by TC-ERM06 (October 1998)
- Second Interim Report by TC-ERM07 (February 1999)
- Final Report by TC-ERM08 (June 1999)

Any suggestions about the best way to try and get suitable standards for commercial amateur equipment will be gathered by the EUROCOM Chairman. Please do not postpone : take action now.

73.

Gaston Bertels, ON4WF
EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel/Fax: +32.2.771.67.74 - E-Mail : gaston.bertels @ innet.be

EUROCOM Newsletter
10.07.1998

EUROCOM WG meeting - Friedrichshafen - Sunday 28 June 1998

Participants :

Karl Erhard Vögele	DK9HU
Hans-Joachim Brandt	DJ1ZB
Hans-H. Ehlers	DF5UG
Thilo Kootz	DL9KCE
Christina Volmer	DARC
Ian Kyle	GI8AYZ
Peter Kirby	GoTWW
Hilary Claytonsmith	G4JKS
Vincent Magrou	F5JFT
Armin Wyss	HB9BOX
Gaston Bertels	ON4WF

Agenda

1. RTTE Directive

- The Directive will be submitted to the European Parliament in second reading in september 1998, to be adopted by the Council end of 1998. A 3 to 4 year transition period will be provided for the Member States to harmonise their legislation.
- Non-commercial Amateur equipment is exempted (same as EMC-Directive).
- Kits are still a problem : the Commission considers Kits as commercialised equipment. ON4WF will make a final attempt for commercialised Amateur Radio kits to be exempted too.
- Essential requirements (Art. 3) for commercial Amateur equipment. The "notified bodies", which control the conformity of the commercial equipment, have formed an "Association of Competent Bodies" (ACB), Convenor Michael O'dwyer, EI. They hold regular meetings. We shall try to have the ACB admit, that the "Essential requirements" for commercial Amateur equipment are to be limited to "out of band" radiation.

2. EMF (Electromagnetic fields)

- Germany and Poland have specific legislation with regard to EMF (non-ionising radiation limited to thermal non-cumulative effects). The German law has set very severe EMF limitations, with regard to older pacemakers still being in use.
- Other countries follow ENV50166-2 guidelines of CENELEC or ICNIRP (International Commission on Non-Ionizing Radiation Protection).
- In the EC, 3 Directorates are concerned with EMF :
  DG III : Low Voltage Directive (safety)
  DG V : Health - Physical Agents

DG XIII : Telecommunications. They pay CENELEC to produce standards for EMF.

- OZ8CY has commented papers in order to get the average value of SSB transmission reduced to 1/8 of FM.
- EMF is commented in the Internet pages of ARRL, COST244 and WHO (World Health Organisation).
- DJ1ZB commented the answers to the EMF questionnaire (appended to the EUROCOM Newsletter of 24.04.1998). These are his final comments:

  DARC is trying to relax the situation in Germany and to prevent the german ideas on pacemaker protection to spread into other european countries… ***Darc must issue a warning to all european amateur radio societies : The german standardizers are of the opinion that their work has been an example to follow in european standardization. They are also very convinced of their present work and want to submit their latest draft standard on pacemaker protection to CENELEC TC 211****. According to the latest reports from CENELEC, however, CENELEC is still of the opinion that pacemaker protection is EMC related and should not be included in a standard on human exposure to electromagnetic fields.* ***But this may change.***

  Therefore, all european radio services should not leave the future development on EMF standards uncontrolled. DARC has evident reasons to urge all european radio amateur societies to contact their national representatives in CENELEC TC 211 and to lobby for the real needs of radio services. According to the responses received from several amateur radio societies, the prestandard ENV 50166-2 may not meet all national views and ideas, but seems to be a good compromise, and all radio services should be able to live with it. The consequences of including ICNIRP limits (considerable lower limits in the medium and long wave bands) might be an acceptable concession for the amateur radio service.

  DJ1ZB thanked the EUROCOM members who have responded to the questionnaire, and who have sent additional information. Those who did not take part for various reasons might be encouraged to contribute later, to improve the overall view which we have already received from this work.
- Tom Sprenger, PA3AVV produced a very well documented paper on the limits of cardiac pacemakers, published in the July 1998 issue of the VERON magazine "Electron".

3. EC and CEPT / CPG

- ON4WF reported on the consulation meeting of 24 - 25 June 1998, held in Brussels :
- ERC (European Radiocommunications Committee), assisted by ERO (European Radiocommunications Office), set up a CPG (Conference Preparatory Group), led by Joachim Strick.
- There are 4 task groups :
  PT1 : Regulatory issues
  PT2 : BSS (Broadcast Satellite Service)
  PT3 : MSS (Mobile Satellite Service)
  FSS (Fixed Satellite Service)
  FX (Fixed Service)
  HAP (High Altitude Platforms)
  PT5 : Maritime issues (Chairman : Christoff Slomczyncki, SP5HS)
- WRC-99 becomes WRC-2000 (March 2000), with 35 items on the agenda.
- The goal of the consulation meetings is to identify priorities, in order to prepare a common European Community programme for WRC-2000.
- About 100 delegates participated to the 2 days meeting :
  European Commission
  National Telecommunications Authorities
  Spectrum users : ESA, EUTELSAT, Air Administrations, etc.
  NATO, Pentagon, US Navy, etc.

INMARSAT, IRIDIUM, TELEDESIC, Aérospatiale, etc.
IARU

Industry : Ericson, Motorola, Matra Marconi Space, Bouygues Télécommunications, Alcatel, Bosch Telecom, Siemens, etc.

- Session 1 : Introduction. NL PTT insisted on Earth Observation to be put on the agenda.
- Session 2 : HDFS + HDFSS (fixed services used in high density applications : Teledesic…)
  HAPs (Helium Balloons orbiting at 10-20 km altitude)
- Session 3 : Radionavigation + GPS + GNSS (Global Navigation Satellite System)
- Session 4 : UMTS (Universal Mobile Telecommunication System, the european project) :
  - spectrum needs in 2002 (decided by ERC in 1997 and approved so far by 9 member states) : 2 x 40 MHz (terrestrial)
    2 x 30 MHz (satellite)
  - additional spectrum needs in 2010 (defined by the UMTS permanent forum) :
    185 MHz (terrestrial)
    60 MHz (satellite)
  - WRC-2000 will be a milestone for UMTS.

- Endangered Amateur Radio bands might be 1.2, 2.3 and 10 GHz.

- The next consultation meeting will be on navigational issues (Brussels, 21 - 22 sept. 1998).

4. AOB

- G4JKS reported on "HF Mains signalling". This is a bi-directional cable system transmitting and receiving data, using radio frequencies to and from 'direct to line' connected terminals. The proposed system intends to be a cheap alternative to the telephone based Internet, Intranet and similar data networks.

- The current commercial proposals for HF mains signalling require considerable transmission bandwidth. Unless the mains cables are suitably screened, terminated and filtered, signals cannot be confined to power distribution cables alone and will radiate by all connected wiring. Even with low power, such emissions have the capacity to interfere with other radio services over considerable distances. Much of the HF spectrum would become permanently unusable.

- The RSGB raises a very robust objection to the current commercial proposals for mains signalling in the HF spectrum.

ON4WF, EUROCOM Chairman

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
24.04.1998

Electromagnetic fields

1. Questionnaire

Human exposure to electromagnetic fields is more and more a matter of concern to the public in general and, by way of consequence, to the authorities.

In the USA as well as in Germany, legal constraints limit the admissable fieldstrength. In Europe CENELEC has developed a pre-standard (ENV 50166) for human exposure to electromagnetic fields.

The DARC Standards Surveillance Committee is conducting a survey on this important matter. Hans-Joachim Brandt, DJ1ZB has prepared a questionnaire addressed to the European radio amateur societies. This questionnaire is appended to this Newsletter.

Would you be so kind to answer the questionnaire and to return it before the end of May to DJ1ZB.

EUROCOM meeting at Ham Radio in Friedrichshafen

DARC will host a EUROCOM meeting on Sunday morning 28 June 1998 at Ham Radio in Friedrichshafen.

Agenda :

the RTTE Directive :
- latest developments
- further action

EMF (electromagnetic fields) :
- how this problem is perceived and dealt with in different countries, more precisely by the Member States of the EU
- building a strategy for the amateur service to cope with this new threat.

AOB

I hope to meet you in Friedrichshafen.

Best 73.

Gaston, ON4WF
EUROCOM WG Chairman.

Annex : 1

International Amateur Radio Union – Region 1

EUROCOM Newsletter 26.03.1998

RTTE Directive

1. Reminder (see EUROCOM WG Report 1998)

The Social and Economic Committee has published its Opinion, stating that “The scope of radio equipment covered by the Directive should exclude radio equipment used by radio amateurs”.

The European Parliament has adopted two Amendments in favour of the amateur service :

- no restriction for the non-commercial building, transformation or use of RTTE in Amateur Radio and satellite services by licensed radioamateurs
- compliance with essential requirements can be proven by a technical specification covering only limitation of emissions outside bands allocated to the Amateur Radio Service.

2.Draft proposal prepared by the European Commission, DGXIII

DGXIII has prepared a new draft proposal on Radio and Telecommunications Terminal Equipment (RTTE) and the mutual recognition of their conformity.

Only the first amendment of the Parliament (no restriction for non-commercial equipment) has been taken into account.

This topic is now covered by Annex I, (a) of the proposal concerning Equipment not covered by the directive : “Radio Equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union radio regulations unless the equipment is available commercially”.

3.Position of DGXIII

I have questioned M Bogers (DGXIII) about the second parliamentary amendment (compliance with essential requirements).

His answer is this :

“As far as the technical requirement is concerned we take the view, that this is not a matter to be arranged in the Directive. It is a technical matter to be judged by a notified body and on which ETSI should draft harmonised standards. The Commission therefore does not support the inclusion of amendment 8 and agrees with Council on this matter”.

4. Further action

The question is : can we live with these issues ?

- no definition of “non-commercial” equipment (we had proposed to mention “home made, kits and transformed commercial equipment”)
- technical requirements to be defined by ETSI.

Will you please circulate your comments by Email. Any suggestions for further action ?

Best 73.

Gaston, ON4WF

EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
12.02.1998

CTE Directive - Latest developments

Opinion of the Social and Economic Committee

The Opinion of the Social and Economic Committee on the CTE Directive has been published on 10 December 1997. It states that "The scope of radio equipment covered by the Directive should exclude radio equipment used by radio amateurs".

Amendments adopted by the Parliamentary Committee

On 21 January 1998, the Committee on Economic and Monetary Affairs and Industrial Policy unanimously adopted the draft legislative resolution.

The three amendments in favour of the amateur radio service were maintained :

- Recital 20a : "…; **whereas this Directive does not restrict the non-commercial building, transformation or use of RTTE in Amateur Radio and Satellite services by licensed radioamateur**s;"
- Article 3, par.2 (ca) : "**for equipment exclusively intended for the Amateur Radio Service as defined by the International Telecommunications Union Radio Regulations RR S1.56 and for the Amateur Satellite Service as defined by the Radio Regulations RR S1.57, compliance with the essential requirements can be proven by a technical specification covering only limitation of emissions outside bands allocated to the Amateur Radio Service without prejudice of Article 8**".
- Article 6, par. 3a : "**Home built equipment, kits and modified commercial equipment, intended exclusively for use by licensed radio amateurs and not intended to be placed on the market, are exempted from the requirements of this Article**".

The adopted resolution was emailed to the EUROCOM WG correspondents on 23 January 1998.

Amendments adopted by the European Parliament

On 29 January 1998, the plenary of the European Parliament approved the proposal for the CTE Directive.

The amendment Recital 20a and the amendment Article 3, par.2 were <u>adopted</u>.

The amendment Article 6, par. 3a was <u>rejected</u>.

Since home built equipment, kits and modified commercial equipment, not intended to be placed on the market, is anyway out of the scope of the Directive, the Parliament did not see the need to exempt it from the requirements of article 6 (Placing on the market and putting into service).

Moreover, the amendment is redundant with the amendment of Recital 20a.

The text of the adopted amendments is available in different languages on the Internet :

http://www.europarl.eu.int

Legislative process

The next steps in the legislative procedure are :

- the European Commission will be asked to alter its proposal according to the Parliament's amendments
- the European Council will be called upon to incorporate Parliament's amendments in its position
- should the Council depart from the text approved by the Parliament, the conciliation procedure should be initiated
- the Commission is required to submit to Parliament any modification it may intend to make to its proposal as amended by Parliament.

Conclusion

So far, we have succeeded in reducing the burden of conformity assessment for commercial amateur radio equipment to an acceptable level.

The exemption of home built equipment has not been written down in the articles of the Directive. It has been stated in the recital. We should carefully examine if this can produce any negative side effects.

Best 73.

Gaston Bertels, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

EUROCOM WG

NEWS LETTERS

1997

November 1999

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
2.12.1997

R&TTE Directive

1. Committee on Economic and Monetary Affairs and Industrial Policy - Hearing

This morning, the Committee discussed the Report presented by Mrs Imelda Read , MEP.

Mrs Read began her presentation by saying that she had undergone heavy lobbying by the radioamateur service. Incidentally, she mentioned that she had learned, that the radioamateurs are actually radio experimenters (I had emphasized this point when the EUROCOM WG met Mrs Read in October). She said that the amateurs were afraid that the Directive could endanger their service by impeding their experimentation. Although their reaction was probably overemphasized, she had nevertheless introduced some amendments in her Report to protect the radioamateur service. She mentioned that some MEP are radioamateurs themselves and that she would rather avoid them to come and demonstrate before her door. This humorous remark provoked general laughter.

During the discussion on the Report several aspects were examined, such as the provisions made for the handicapped and the liability of the manufacturers. There were no comments about the radioamateur amendments.

Amendments will be received till 12.01.1998. The Committee will vote on its Report on 21.01.1998. The final Report will be issued on 20.02.1998.

After that, the European Commission will have to finalize its proposal.

When Mrs Read left the meeting, I thanked her for having taken our remarks into account and for her action in defending our service. The said that the amateur amendments have a fair chance of being adopted.

2. UMTS

I stayed at the Committee meeting to assist to the presentation of the Report of Camison Asensio, MEP on a communication of the Commission with regard to the further development of mobile and wireless communications (UMTS).

This Report ... « 7. Welcomes the position adopted by the Commission in proposing that a European approach be taken to regulation, standardization, frequency allocation, etc. »

We can expect the CEPT to be looking for frequency allocations for UMTS in the near future.

Best 73.
Gaston, ON4WF
EUROCOM WG Chairman.

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
1.08.1997

CTE Directive - Action by the EU Member Societies

At the EUROCOM meeting in Friedrichshafen (28 june, 1997), it was decided that each EU Member Society should address a request to their National Regulatory Authority asking for support in seeking exemption from the CTE Directive for all types of amateur radio equipment.

RSGB accepted to prepare a draft so that the request be presented in the same wordings and with the same arguments in every country (see EUROCOM Newsletter 15.07.1997, item 5).

The draft request and the arguments are appended. Each EU Member Society is urged to translate this draft in their own language and to address the document to their National Authority without delay.

CTE Directive now officially circulated

The European Commission has now transmitted the proposal for the CTE Directive to the Social and Economic Committee and to the European Parliament.

The Social and Economic Committee has already set up a working group to study the proposal. This working group will first meet in september 1997. The European Parliament will do the same.

We will address our request for exemption of the amateur equipment to these working groups.

Furthermore, the Secretary General of the Social and Economic Committee will make arrangements for an IARU delegation to meet the chairmen of these working groups/committees in due time.

73.

ON4WF, EUROCOM WG Chairman.

Annex : 1

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
15.07.1997

Meeting at Ham Radio- Friedrichshafen - Report

Friedrichshafen, 28 june , 1997.

Participants :	PAoLOU	Chairman IARU R1
	DK9HK	President DARC
	DL3OBZ	DARC Foreign Affairs
	Christina Volmer	DARC Legal Advisor
	DL2EBX	DARC CQ DL Magazine
	DL4EM	DARC
	DL9KCE	DARC
	DF4JI	DARC
	I1BYH	President ARI
	F3YP	President REF
	F5JFT	Vice-President REF & IARU R1 EC Member
	F5AJ	REF EMC WG
	G4JKS	Council Member RSGB
	GoTWW	General Manager RSGB
	PA3DOS	1st Vice-President VERON
	SMoSMK	President SSA
	SM7EQL	SSA Manager Training
	ON7TK	Vice-President UBA
	ON4WF	Chairman EUROCOM WG

1. Introduction

Chairman ON4WF thanked the DARC for hosting the EUROCOM WG meeting.

There is only one agenda item : the Proposal by the European Council for a CTE Directive.

ON4WF introduced the subject : a new approach for Connected Telecommunication Equipment (CTE) type approval. The present « a priori » type approval would be replaced by an « a posteriori » surveillance (cf. the EUROCOM WG 1997 Report).

2. Discussion

All along previous contacts with the author of the proposal (Joergen Richter, Directorate XIII), we were told that the Amateur Service and the Amateur Satellite Service would fall under the scope of the CTE Directive. This was presented as an opportunity to harmonise the services within the EU as far as the equipment is concerned, home made as well as commercial. The constraints would be put to as low a level as possible and no national authority would further be allowed to intervene.

There was a discussion about the definition of CTE : no specific services are mentioned in the text. An exception is made for equipment intended for exclusive public security use. On the other hand, Open Telecommunications Network Termination Points (ONTP) are specifically concerned. It seems that the Amateur Services are not exempted, but this point has to be clarified before any further steps are taken.

Of special concern is the possible threat, that the present exemption of homemade equipment from the EMC Directive (89/336/EEC) could be lost.

3. Equipment type approval within the EU

Presently, only two countries have introduced type approval for Amateur Radio equipement, as well home made as commercial (France and Belgium).

4. Resolution

The participants were unanimous, that home made equipment (including kits) should be exempted from any form of type approval, even by self declaration of conformity.

The majority also wished that the CTE Directive be not applicable to commercial Amateur equipment.

5. Action

PAoLOU suggested that in every country the question be put to the national authorities : would the Amateur Services, to their opinion, be in the scope of the CTE Directive ?

It was decided that RSGB circulate, end of July, a draft to the EU Member Societies so that the question be put in the same way and with the same arguments in every country.

The results of this consultation are to be forwarded to ON4WF.

6. Internet Site

The text of the CTE Directive proposal is available on the Internet :

fttp ://www.ispo.cec.be/infosoc/legreg.

Hot News

ON4WF met the Secretary General of the European Social and Economic Committee, Adriano Graziosi (ON5GA).

Up till now, the proposal for a CTE Directive has not yet be officially submitted to the European Social and Economic Committee nor to the European Parliament.

When this is done, the ESEC will set up a working committee to examine the proposal and eventually introduce amendments. This committee will not be created before september 1997.

The Secretary General will invite an IARU delegation to meet the committee chairman so that we have the opportunity to defend our case.

The European Parliament will also submit the CTE proposal to a Parliamentary Committee. This could even be done during the present parliamentary session.

When this occurs, the Secretary General of the Social and Economic Committee will also make arrangements for a meeting with the chairman of the Parliamentary Committee.

Before these meetings, we are to prepare and introduce a document to expose our case.

The meetings will be in Brussels.

73.

ON4WF, EUROCOM WG Chairman

International Amateur Radio Union - Region 1

EUROCOM WG

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International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
23.07.1996

Draft Spanish Royal Decree establishing the technical specifications for commercial Amateur Radio equipment.

1. EU Information procedure

Manfred Dudde, DL5KCZ circulated a paper, dated 09.06.1996, to which was appended the draft (in german language) of a Spanish Royal Decree on commercial amateur radio equipment.

This draft decree had been submitted to the information procedure relating to standards and technical regulations, as specified in the Directive 83/189/EEC of the European Parliament and Council of 28 March 1983.

Directorate General III of the European Commission, in charge of Industry, has circulated this draft to the Member States on 04.03.1996. Member States have 3 months for commenting drafts.

ON4WF questioned Directorate General III. Answer is, that no action will be undertaken by the European Commission (DG III).

2. EMC parameters

The Spanish Decree includes some specifications relevant to EMC regulations, such as the limits of non-essential emissions.

This seems to be in contradiction with the EU-Mandate BC-T 353, specifically ETR-238, as it introduces a redundant regulation.

May I suggest that the EMC WG Chairman examine the text of the decree from this point of view. URE could possibly use this information in approaching the Spanish General Directorate of Telecommunications.

3. EMC situation of Amateur equipment in other Member States

Existing legal regulations in several European countries include EMC parameters. This is the case in Belgium for instance, but the Belgian Decree on Amateur Radio is to be revised soon.

The IARU societies should check their national regulations for redundancy with European law.

Anyhow, equipment with the **CE** marking is supposed to be in accordance with the EMC Directive, 89/336/EEC. An harmonized EMC Standard is underway (final draft prETS 300 684: May 1996).

4. The text in English of the Spanish Decree is appended

Yours sincerely,
Gaston Bertels, ON4WF

International Amateur Radio Union - Region 1

Gaston Bertels, ON4WF - EUROCOM WG Chairman
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel: +32.2.771.67.74 Email: gaston.bertels@innet.be

EUROCOM Newsletter
16.07.1996

European Directive on Telecommunication Equipment

In the EUROCOM Newsletter published in December 1995, I announced that the draft of the new Directive on Telecommunication equipment would be circulated early in 1996, presumably in January or in February.

The publication of this draft has been delayed several times and the wordings of the draft have not yet been approved by the Commission.

I have often been checking with the Commission staff about the progress of the draft. At the time being, the draft is expected to be published in september 1996.

As soon as it is available, I will circulate the text. Perhaps we will have it just in time for the Tel Aviv Conference meeting.

Workshops hosted by the European Commission

In june 1996, the European Commission hosted two Workshops in Brussels:

- CEPT Workshop on WRC-97 (5 june 1996)
- ERO Workshop on UMTS (6 june 1996)

About 100 delegates participated to each Workshop (CEPT and ERO staff members, PTT delegates of the member states, representatives of the telecommunications industry). ON4WF was invited as IARU/EUROCOM delegate.

A summary of the Workshops conclusions is appended. This report has been presented and commented at the international meeting at Ham Radio in Friedrichshafen (29 june 1996).

EUROCOM WG meeting in Tel Aviv

EUROCOM delegates are invited to a meeting during the Tel Aviv Conference. The date and time of this meeting will be announced during the Conference.

Draft agenda:

1. Welcome and roll call
2. Appointment of a secretary
3. Approval of the agenda
4. Chairman's report
5. Discussion on:
   - the drafted telecommunication equipment Directive (if available)
   - evaluation of the EUROCOM WG work
   - future tasks
6. Report to Conference
7. Any other business
8. End of meeting

Yours sincerely,
Gaston Bertels, ON4WF

CEPT Workshop on WRC-97

Hosted by the European Commission in Brussels, 5 june 1996

1. Mobile Satellite US proposals

In his introduction, Malcolm Johnson, Chairman of the CPG (Conference Preparatory Group of the CEPT), mentioned the pressure put on the US proposals for the Mobile Satellite service, without going into details such as frequency bands. He said that these proposals are to be examined carefully.

ON4WF had an off floor conversation with David Court, Head of ERO who said that he would support our opposition against the US shopping in the amateur 2 m and 70 cm bands.

2. The WRC-97 shopping list (WRC-97 to be held in Geneva will last 4 weeks)

Malcolm Johnson listed the following items to be discussed in WRC-97:

- to simplify the RR, as proposed by the Voluntary Group of Experts (VGE)
- Maritime and Maritime Satellite:
  - watch frequencies on 500 kHz and around 2 MHz to be abandoned as a consequence of the Global Maritime System ?
  - more spectrum versus smaller channels (12.5 kHz)
  - frequencies for "on board" services (50 GHz ?)
  - RR 61: priorities
  - Navigational Warning by Telex (NAVTEX)
  - use of digital technology in radiotelephony
- the Space Science radio service is asking for more spectrum:
  - around 401-403 MHz for meteorology
  - 3 MHz between 100 and 1000 MHz for telecommand links in Space research
  - 3.5 MHz in the 420-470 MHz segment for Earth exploration satellites
  - harmonization between 1 MHz and 25 MHz with worldwide common primary allocations
  - 500 MHz around 35 GHz and 1 GHz around 95 GHz
  - an allocation above 50 GHz for the Earth exploration satellite service
  - an allocation near 26 GHz for Earth exploration (Space => Earth)
  - reallocation of existing frequencies with a view to protect the Earth exploration satellite service (passive) operating from 50 GHz to 70 GHz (unique oxygen absorption frequency band)
  - an allocation for Space to Space communications near 400 MHz (Shuttle)
- HF Broadcasting
  - band extensions of WRC-97 to be available ad interim from 1.1.96
  - developing countries strongly request an a priori plan for HFBC as a final solution, but CEPT and others prefer coordination procedures
  - ITU-R is preparing planning procedures to be considered by WRC-97
  - is SSB still the right approach? Better go Digital?
- Wind profiler radars (radars to measure wind direction and speed as a function of altitude, related to frequency):
  - the World Meteorological Organization (WMO) asks for frequencies near 50 MHz, 400 MHz and 1000 MHz
  - between 1200 and 1300 MHz ?
  - the USA ask for frequencies between 440 and 450 MHz (on which conditions?)
- Updating of RR for emission levels measurements:
  - USA versus European and rest of the world philosophy

3. Proposals for WRC-99 are to be introduced before the end of 1996.

ERO Workshop on UMTS

Universal Mobile Telecommunication System

Hosted by the European Commission in Brussels, 6 june 1996

1. Conclusions concerning spectrum requirements:

- the total amount of spectrum requirement is unclear so far.
- additional spectrum requirement might be 300 to 500 MHz.

2. Conclusions concerning technology issues:

- UMTS needs a more efficient technology than nowaday systems such as GSM, e.g.:
    - adaptative antennae
    - speech coding at 4 kb/s
    - a pentium processor
    - dynamic frequency sharing
    - priority users
    - multimodems

3. Conclusions concerning sharing issues:

- further study is needed for sharing
    - with satellite bands
    - with DECT (cordless)

4. Conclusions concerning FPLMTS spectrum (Future Public Land Mobile Communications System):

- 1885-2025 / 2110-2200 MHz is to be the core-band for UMTS

5. Conclusions concerning additional spectrum:

- more market studies are urgently needed
- candidate bands are to be identified and decisions taken at WRC-99
- the additional frequency requirements would come into effect in 2008
- these bands were put forward by ERO:
    - 2025-2110 MHz
    - 2200-2290 MHz
    - 2360-2400 MHz
    - 2483.5-2520 MHz
    - 2520-2670 MHz
- the national administrations are urged to report to ERO on the impact of freeing these bands
- the French DGPT delegate said that the two first bands cannot be freed, nor the fourth one

Attention: the third solution would cut 40 MHz out of the 13 cm amateur band !!!

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Gaston Bertels, ON4WF - EUROCOM Convenor
Avenue Paul Hymans 117/29 - B-1200 Brussels - Belgium
Tel/Fax: +32.2.771.67.74

EUROCOM Newsletter
26.12.1995

A new European Directive on Telecommunication Equipment

In the EUROCOM annual report, which was circulated in February 1995, I announced that a new Directive on Telecommunication matters was in the pipeline.

The draft of this Directive is presently ready, but has not yet been published.

It will be circulated early in 1996, presumably in January or in February.

As soon as it is available, I will circulate the text.

Declaration of conformity

It seems that the new Directive will allow manufacturers of telecommunication equipment to address a *Declaration of conformity and applicability* to any recognized european control office, together with the test protocol of the equipment.

If the test protocol is conform with the european regulations, such as EMC, the manufacturer is allowed to apply the **EC** mark, together with the identification number of the control office. The **EC** mark allows sale and use of the equipment in every european member state.

Manufacturers can perform the tests themselves, but are responsible for their declaration.

Amateur radio equipment

Different telecommunication services will be concerned by this new Directive, such as Fixed Land, Land Mobile, etc. as well as the Radio Amateur Service and the Satellite Amateur Service.

That means that, for his home brewed equipment, a radioamateur will be allowed to address a *declaration of conformity,* together with the protocol of the tests he performed himself, to a control office. If the equipment is conform with the european regulations, the amateur will be allowed to apply the **EC** mark and the identification number of the office on his equipment, use it everywhere in the European Union and even sell it if he wants to.

Evaluation

As soon as the text of the Directive is circulated, I suggest that EC members and EUROCOM delegates meet in Brussels, to conduct a detailed discussion about the implications of this Directive on the amateur service.

Mr Jörgen RICHTER (DG XIII), in charge of this Directive, who participated to a EUROCOM meeting during the IARU Conference 1993 in De Haan, will be happy to meet us and answer our questions.

Season's Greetings

I wish you a very Happy New Year. May 1996 favour you and your family with happiness and success, and bestow many favours upon the amateur service.

Sincerely,

Gaston Bertels, ON4WF
EUROCOM Convenor