

**Response of the
European Radiocommunications Committee
to conclusions and recommendations of the
DSI Phase III (862-3400 MHz)**

As adopted by the 30th ERC meeting, March 2001

Background

The following document contains the response of the European Radiocommunications Committee (ERC) to the conclusions and recommendations of the Phase III of Detailed Spectrum Investigation (DSI Phase III), that addressed a general review of the use of the band 862-3400 MHz.

The ERC perceives the DSI process as an efficient means to achieve a strategic forward planning and harmonisation of the use of the radio frequency spectrum in Europe. Two major consultation processes were carried out by the European Radiocommunications Office (ERO) previously, namely the DSI Phase I, covering the frequency range 3.4-105 GHz, and the DSI Phase II, covering the frequency range 29.7-960 MHz.

One of the major results of the consultation process so far has been the establishment of a Common European Frequency Allocation Table (ECA) in the ERC Report 25. The ECA contains agreed European common allocations and major utilisation within each of the bands covered by the table. Although the ultimate implementation of the ECA has been foreseen for the year 2008, it is expected that CEPT member countries will endeavour to implement as many parts of the ECA as possible before that date.

Following the World Administrative Radio Conference of the ITU in 1992, which allocated spectrum to new services in the 1-3 GHz range, the ERC developed the ECA for this range in order to promote European harmonisation. Further adjustments of the European Common Allocation table were agreed to include relevant decisions from the WRC-95 and WRC-97.

The ERC decided to initiate the DSI Phase III process covering the frequency range 862-3400 MHz in order to open this particular frequency band for an organised general consultation process with industry and users with the aim to establish and further develop the long term frequency plan for Europe.

Objective of the DSI process

The general objective of the DSI process is to ensure that European industry and users derive maximum benefit from the limited amount of frequency spectrum. Thus through contributing to this consultation process, industry and users have a direct influence on the work of the ERC.

The results of the DSI process are generally used to further develop and adjust the ECA. So the DSI Phase III produced a number of conclusions and recommendations regarding the future use of the band 862-3400 MHz. The DSI Phase III also addressed more general questions of how this frequency band is managed and administered in CEPT countries.

Approach and working method used in the DSI Phase III

When launching the DSI Phase III, ERC decided that it should be conducted as an iterative, open and transparent process. All information received during the process should have been made publicly available unless the information was provided to the ERO in confidence for commercial reasons.

The ERO was given the overall task of conducting and managing the DSI Phase III. At the same time, the national Administrations were requested to contribute to the process along with the industry and users, and to conduct national consultation processes in support of the European DSI process.

The process was carried out in 3 iterative rounds of consultation, with interim reports as well as the final report from the process being presented for public consultation. The reports were discussed at

open workshops where all recommendations and conclusions, as well as background were considered in detail.

The final Report of the DSI Phase III, containing a set of conclusions and recommendations, was presented to the 28th ERC Plenary meeting, 27-31 March 2000, Nicosia. That ERC Plenary meeting accepted the report and invited the Working Group Frequency Management (WG FM) to consider the report and to develop draft ERC response to the conclusions and recommendations of DSI Phase III.

It was also agreed that an additional 4th round of DSI Phase III consultations should be carried out in the middle of 2000, addressing the impact of results of WRC-2000 on the previous DSI conclusions. The report from this post-WRC-2000 round of DSI Phase III consultations was presented to the 29th ERC Plenary meeting, 16-20 October 2000, Lisbon. The ERC Plenary again accepted the report and forwarded it to the WG FM for inclusion into the consideration and development of a consolidated ERC response to the DSI Phase III.

The reports, together with all related documentation and contributions to DSI Phase III may be found on the ERO Web site at: <http://www.ero.dk/>.

Development of the ERC Response to DSI Phase III

The ERC response to the DSI Phase III was originally developed in a project team of WG FM (FM PT 37). FM PT 37 was established already prior to the finalisation of DSI Phase III and was originally used to facilitate consolidated input from CEPT Administrations to the DSI consultations.

The ERC Response to the DSI Phase III has been developed in close co-operation with other ERC working groups: WG Spectrum Engineering (WG SE), WG Radio Regulatory (WG RR) and Short Range Devices' Maintenance Group (SRD MG) in the areas of their responsibility and expertise.

The current document provides the ERC response, as approved by the WG FM and finally adopted by the 30th ERC Plenary meeting, 12-16 March 2001, Paterswolde, The Netherlands.

Structure of the response

The ERC response to the DSI Phase III is structured in the following manner:

- Part One of the Response provides a summary table of all DSI recommendations and ERC responses in an easy-to-use reference format,
- Part Two of the Response provides detailed responses to DSI recommendations and conclusions. In this part, all conclusions and recommendations of DSI Phase III are listed in the boxes, each being accompanied with the relevant ERC response, identified necessary action and relevant time frame for that. The DSI conclusions and recommendations are kept with their original numbering as in the final DSI Phase III report. Conclusions and recommendations from the 4th post-WRC-2000 round of consultations are marked with the appropriate note.
- Annexes to the ERC Response contain detailed proposals for some of the important actions, originating from the relevant DSI recommendations.

Part A
Summary Table

SUMMARY TABLE
of all DSI recommendations/ERC responses/necessary actions

Note: Reference numbers with letter P refer to the recommendations and conclusions from the 4th (Post-WRC-2000) round of DSI Phase III

No.	Issue	Response (Accept/No)	Necessary action	Responsible body	Target date	Notes
1	2	3	4	5	6	7
	<u>General issues</u>					
1.1	Response to the DSI process	Accept	Done through development of this ERC response	FM PT 37	March 2001	
1.2	Transparency of allocation mechanisms and industry participation in the work of ERC	Accept	ToRs of all TGs and PTs to be reviewed to reflect the policy agreed by 23 rd ERC meeting properly	ERC All WGs	End 2001	
1.3	Review/enlargement of ECA	Accept	ECA to be reviewed and enlarged. Proposal for a new ECA structure is given in Annex 1.	ERO/WG FM	Sept 2001	
1.4	Revision of ERC Dec. (97)01 – National tables	Accept	ERC Dec. (97)01 to be reviewed	WGs RR/FM	End 2002	
P.7	Forum to continue DSI-like consultations	Conditional	The thrust of the recommendation is supported, however the idea to be considered in the overall light of CEPT reform. One proposal is given in Annex 3.	WG FM	1Q/2002	
	<u>Refarming/Redeployment issues</u>					
2.1- 2.4 P.1	Initiative to collect and disseminate information within CEPT on the national practices of frequency refarming	Accept	ERC Report to be developed	WG RR	End 2002	
	<u>Analogue cellular mobile in the 900 MHz band</u>					
3.1	Gradual phase-out of analogue cellular from 900 MHz	Accept	NRAs to take account of this recommendation	NRAs	-	
3.2	Priority to digital vs. analogue cellular	Accept	NRAs to take account of this recommendation	NRAs	-	
	<u>Usage of the 900/1800 MHz GSM bands</u>					
4.1- 4.2	Priority of public mobile in GSM bands vs. other services, such as Fixed	Accept	Priority to be recognised through the ECA	WG FM	ECA review	
4.3	Maintain E-GSM Decision	Accept	No change to ERC Dec. (97)02 on E-GSM frequencies	-	-	
	<u>Refarming of GSM frequency bands to UMTS</u>					
5.1 P2.1	Refarming of GSM frequency bands to UMTS in the longer term, subject to market demand	Conditional	Use of UMTS technology in the GSM/E-GSM bands might be envisaged	ERC PT1	PT1 ToR refer	

	<u>Other services in the 900 MHz and 1800 MHz bands</u>					
	<u>Railways</u>					
6.1	Upgrade of ERC. Rec. 25-09 on GSM-R	Accept	ERC Rec. 25-09 to be upgraded to ERC Decision	WG FM	2001	
6.2	Consider introduction of DMO channels in GSM-R	Accept	Incorporate provisions for DMO into the new ERC Dec, as developed through p. 6.1	WG FM	2001	
6.3	To develop European-wide strategy for the co-ordinated introduction of GSM-R	Accept	To implement through MoU on co-ordination of GSM-R frequencies, pending input from UIC on this issue	WG FM	2001	
	<u>Cordless applications in the 900/1800 MHz bands</u>					
7.1	Agree on a common time scales for phasing out CT1, CT1+ and CT2 equipment from 900 MHz band	Accept	WG FM to develop ERC Decision with the list of CTs and the latest date of their phasing-out WG RR to develop guidance on national implementation of such measures (ERC Recommendation or Report)	WGs RR/FM	End 2001	
7.2	Continue designation for DECT in the 1800 MHz	Accept	No change to DECT designation	-	-	
7.3	Study requirements of GSM CTS application	Conditional	Studies could be started only when requirements are clearly stated	-	-	
	<u>PMR/TETRA</u>					
8.1	Development of strategic plan for the 900 MHz band	Accept	Strategic plan developed and agreed by WG FM. It is attached as Annex 2 to this response.	WG FM	Done	
8.2	Reserve bands 870-876/915-921 MHz for Digital PMR and military tactical RRL	Accept	Accepted provisionally, subject to review end 2002, based on results of sharing studies and confirmed requirements/market developments for Digital PMR, see also p. 22.2	WG FM	Done	
8.3	Review of TETRA developments	Accept	A review of TETRA developments to be carried out by the end of 2002	WG FM	End 2002	
	<u>EISCAT</u>					
9.1-9.2	Protection of EISCAT scientific operations	Accept	Concerned NRAs invited to take this into account	NRAs	-	
9.3	Not use EISCAT band for unlicensed applications	Accept	To take this into account in the review of ECA	WG FM	ECA review	
	<u>UMTS/IMT-2000</u>					
10.1	Making available sufficient spectrum for UMTS	Accept	NRAs are urged to implement ERC Dec (00)01, (97)07	NRAs	-	
10.2	Implementation of additional spectrum for P.2 UMTS/IMT-2000	Accept	ERC Decision on this issue to be developed, in particular addressing the 2.5 GHz band	ERC PT1	PT1 ToR refer	
P2.2	3G considerations as related to the 1800 MHz band	Conditional	Several concerns expressed, issue to be studied further within the ERC PT1	ERC PT1	PT1 ToR refer	
P2.3	3G considerations as related to the 2500 MHz band	Accept	These proposals to be taken into further consideration	ERC PT1	PT1 ToR	

P2.5	Further CEPT work on UMTS/IMT-2000	Accept	Done, through creation of ERC PT1	ERC PT1	PT1 ToR	
P.3	Further studies on HAPS	Accept	Studies should be continued	ERC PT1	WRC-03	
	<u>The BSS in the band 2520-2670 MHz</u>					
-	Use of BSS allocation in the 2520-2670 MHz band	Conditional	Priority of IMT-2000 to be maintained in this band, introduction of BSS possible only if sharing proves to be possible, necessary studied to be made	ERC PT1	WRC-03	
	<u>MSS/IMT-2000 satellite component</u>					
P2.4a	More spectrum for MSS	Not accepted	No requirements for additional spectrum are known	-	-	
P2.4b-c	Studies of MSS developments and frequency requirements	Accept	Studies to be initiated, see also p. 11.2	WG FM	WRC-03	
P2.4d	MSS in TFTS frequency bands	Conditional	Only if justified by the results of the review, see p. 11.2	-	-	
P2.4e	Priority to terrestrial mobile communications	Conditional	Understood as only priority versus MSS	-	-	
11.1	No need for additional spectrum for MSS currently	Accept	Not necessary	-	-	
11.2	Detailed study of future MSS needs	Accept	Studies to be initiated in 2001, completed in time for WRC-03	WG FM	WRC-03	
11.3	Refarming initiatives to free MSS spectrum	Accept	Refarming initiatives should follow clear identification of particular demand, seen as ongoing task	WG FM	Ongoing	
11.4	Transitional arrangements for MSS bands within the 2500-2690 MHz IMT-2000 band	Accept	Decision could be developed, but the decision on overall future strategy in 2500-2690 MHz band to be agreed first	ERC PT1	PT1 ToR refers	
	<u>Fixed service</u>					
12.1	Maintain existing channelling arrangements	Accept	No change to ERC Rec. T/R 13-01	-	-	
	<u>Fixed Wireless Access</u>					
13.1	Limit use of FWA in GSM bands only to remote areas with spare capacity in GSM bands	Accept	NRAs invited to take this into account	NRAs	-	
13.2	The FWA in general should be developed in bands above 3.4 GHz	Accept	To follow this policy in future FWA considerations	WG FM	-	
13.3	Compatibility between FWA and radiolocation systems in 3.1-3.6 GHz band	Not accepted	Studies within 3.1-3.4 completed with negative results, no further studies necessary.	-	-	
-	Introduction of local loop unbundling	Accept	NRAs invited to take this recommendation into account	NRAs	-	
	<u>Terrestrial Flight Telecommunications System</u>					
14.1	Review of TFTS allocation	Accept	Review of TFTS requirements to be undertaken	WG FM	End 2001	
14.2	Invite TFTS operators to such review	Accept	Invite operators and other civil aviation organisations at the beginning of the review, see p. 14.1	WG FM	2001	

14.3	Continue TFTS allocation until the end of studies	Accept	Support to maintain TFTS allocation until the 2001-2002, until results of review (p. 14.1) are known	WG FM	2002	
14.4	Consideration of other possible use of TFTS bands	Accept	To be considered if review (p.14.1) confirms no further need for TFTS	WG FM	2002	
	<u>Broadcasting, including DAB</u>					
15.1	Conference to revise Stockholm'61 agreement	Accept	The process initiated by the ERC	WG FM/ FM24	Separate schedule	
15.2	Limit the simulcasting during transition to digital to the extent practical	Accept	Recommendation accepted in principle, however major implications should be considered in the bands outside DSI Phase III	FM24 / FM32	-	
15.3	Review of T-DAB/S-DAB requirements	Accept	The work already initiated by the ERC	FM PT 32	FM32 ToR	
15.4	Allocation of additional blocks to T-DAB	Accept	The replanning conference is set by ERC to June 2002	FM PT 32	June 2002	
	<u>Electronic News Gathering (ENG/OB)</u>					
16.1	Need for general review of ENG/OB frequency use	Accept	Studies initiated within the new FM PT 41 and should lead to the review of ERC Rec. 25-10	WG FM FM PT 41	May 2002	
16.2	Maximum harmonisation of ENG/OB frequencies	Accept	To be taken into account during review, see p. 16.1	WG FM	See 16.1	
16.3	Continue studies on possible ENG/OB sharing with services in the band 2700-3400 MHz	Accept	Studies should be finalised, also taking into account developments in preparation of WRC-03	SE PT 34	WRC-03	
16.4	Study possibilities offered by the mobile networks	Accept	To be taken into account during review, see p. 16.1	WG FM	See 16.1	
16.5	Review of ERC Rec. 25-10	Accept	This work to be done by FM PT41, it should also address SAB/SAP requirements and build on a study, see p. 16.1.	WG FM FM PT 41	2002	
	<u>Short range device applications: Band 862-870 MHz</u>					
17.1	Strategic plan for SRDs in this band to be developed	Accept	The task is already given to SRD MG. Draft plan to be submitted to September 2001 WG FM meeting	WG FM / SRD MG	Sept 2001	
17.2	The use of Spread Spectrum technology for all SRDs across the band	Conditional	Use of Spread Spectrum technology is seen as additional to existing narrow band SRDs in this band	SRD MG	Sept 2001	
17.3	Allow existing narrow-band SRDs to remain	Accept	Existing narrow-band applications should remain	SRD MG	Sept 2001	
17.4	Sharing between SRDs and CT2	Conditional	Studies to be done only if and when Spread Spectrum SRD applications are introduced in band 862-870 MHz	WG FM	To be decided	
17.5	Studies on application of both narrow and wide band applications in the same band	Accept	Studies to be undertaken during preparation of strategic plan for SRDs in the band 862-870 MHz	SRD MG	Sept 2001	
	<u>Short range device applications: Band 2400-2483.5 MHz</u>					
17.6	Strategic plan for SRDs in this band to be developed	Accept	The task is already given to SRD MG. Draft plan to be submitted to September 2001 WG FM meeting	WG FM / SRD MG	Sept 2001	

17.7	Spread Spectrum technology should be considered for general use	Accept	This policy is accepted, with the understanding that it is not made restrictive.	SRD MG	-	
17.8	Solutions for RFIDs in the 2.45 GHz band	Accept	This issue is considered within the SRD MG and to be answered in the strategic plan for SRDs in this band	SRD MG	Sept 2001	
17.9	That RLANs should be moved to 5 GHz band	Not accepted	Not accepted for the time being, because of recognised need of complementary solutions in the 2.45 GHz band	-	-	
17.10	Reduce ENG/OB and FS use of the band 2.45 GHz	Conditional	Support decrease of FS use in the band, sharing between SRDs and ENG/OB yet to be completed, see p. 16.1	WG FM	2002	
17.11	Consider use of UWB technology	Accept	Report on this issue to be developed, public workshop is planned for 20 March 2001.	WG FM	End 2002	
17.12	Studies on radiation limits for ISM in the band	Not accepted	No need for studies currently. Some guidance to NRAs is given in recent ERC Rep. 83 on out-of-band radiation.	-	-	
	<u>Aeronautical telemetry</u>					
18.1	Use of improved technology for aern. telemetry	Accept	Concerned NRAs are invited to take this into account	NRAs	-	
18.2	Continue sharing studies between aern. telemetry and RNS/RLS in the 2700-2900 MHz band	Accept	Studies to be finalised	SE PT 34	SE34 ToR	
	<u>Radio Astronomy</u>					
19.1	Protect RA interests when deciding new allocations	Accept	NRAs are urged to establish proper mechanisms for protection of RA services	NRAs	-	
	<u>Amateur Service</u>					
20.1	Consider amendment of RR S5.282	Conditional	To be considered only for WRCs beyond WRC-03	WG FM	-	
20.2	Consider changes to AS in the bands 1240-1300 MHz and 2300-2450 MHz	Conditional	To be considered only in the longer term	WG FM	-	
	<u>Radionavigation / Radionavigation Satellite</u>					
21.1	Initiatives on development of strategic plan for future civil/military RN use	Accept	ERC may take the initiative in organising exchange of views between interested parties. A workshop should be organised to facilitate discussions.	WG FM	2001/2002	
21.2	To account for new RN systems in development of the strategic RN plan	Accept	Joint Task Group, if created, should be invited to take this into account	WG FM	-	
P.4	To continue with further studies on RNSS in preparation for WRC-03	Accept	Studies should be initiated within the WG SE, with the involvement of external expertise, e.g. GALILEO	WG SE	WRC-03	
	<u>Military</u>					
22.1	Need for harmonised military bands for tactical radio relays	Accept	Two harmonised bands should be found in 900 MHz range (2x5MHz) and around 2 GHz (2x45MHz)	WG FM	2001-2002	
22.2	Identification of 870-876/915-921 MHz as harmonised for military TRRLs	Accept	The band is identified for harmonised military use, shared with Digital PMR. This is pending outcome of sharing	WG FM	2002	

			studies and Digital PMR review (see p. 8.2, 8.3)			
22.3	Identification of harmonised bands for military TRRL around 2 GHz	Accept	The bands should be identified in accordance with the provisions of NJFA and reflected in ECA.	WG FM	ECA review	
22.4 P.5	Support to upgrade of radiolocation to Primary in the band 2.9-3.1 GHz	Accept	Support to upgrade should be given, pending successful outcome of necessary sharing studies	WGs FM/SE	WRC-03	
	Miscellaneous					
P.6a	Study proposal to suppress the BSS allocation in the band 2500-2690 MHz	Not accepted	See discussion above on BSS in the 2520-2670 MHz	-	-	
P.6b	Possible feeder links for N-GSO around 1.4 GHz band - to provide sufficient protection to FS	Accepted	Possible allocation to feeder links should be based on justified requirements and ensure protection of existing services	WG FM	WRC-03	
P.6c	Initiation of work on global frequency arrangements for public safety services	Accepted	The common European policy on this issue to be developed in preparation for WRC-03	WG FM	WRC-03	

Part B
Detailed responses

1. Conclusions and Recommendations on general issues

1.1 The frequency band 862-3400 MHz should as far as possible be optimised for mobile and mobile satellite services according to the market needs. In Europe emphasis should be put on terrestrial mobile systems. Spectrum is, however, still required for a number of other services within the range 862-3400 MHz such as the Radiolocation and the Radionavigation Services and the balance between the services within the DSI range should reflect this. It is also important that the needs for global frequency harmonisation requirements are reflected in the European Allocations.

The conclusions and recommendations of the DSI process should in general be implemented as soon as possible. Even if implementation of the European Common Allocation table is foreseen by 2008 it is important that administrations introduce harmonisation initiatives as soon as possible to meet the fast changing market requirements. Furthermore an implementation process dealing with the actions taken by the ERC for each DSI conclusion and recommendation should be established.

ERC response: ERC supports this general recommendation in principle, in saying that in Europe emphasis should be put on terrestrial mobile services. A number of already existing services, however, still require spectrum within this range for technical and economical reasons. For some of the services such as the Radiolocation and Radionavigation Service this particular frequency range provides the optimum balance between range and resolution and the need for spectrum for those services is increasing. The balance to be found between commercial and non-commercial services needs to take into account the new technologies emerging and the general requirement for extensive sharing between services and users.

Necessary action: This document is developed as an ERC Response to DSI process. After approval by ERC, it will become a basis for action by the ERC family. It will be publicised at the ERO Web page.

Time frame: Approval by ERC - March 2001.

1.2 Allocation of frequency bands must be done in a highly transparent way with intensive involvement of industry and users. It is important that industry takes an active part in the preparatory work of the decision making process within the ERC. The Decisions themselves will, however, have to be taken by the Administrations. Thus procedures should be developed to allow for more direct participation of industry in all relevant project teams and task groups of the ERC and of the working groups.

The ongoing modification of the ERC rules of procedures and working methods which is expected to be finalised before the end of year 2000 should take this into account.

ERC response: ERC supports the objective of this recommendation and appreciates the need for direct industry participation at the PT/TG level. Work in ERC TG1 could be mentioned among the good examples of fruitful cooperation with the industry.

It is also understood that the decision to open PTs of all ERC WGs for participation of any full ETSI members was already taken by the 23rd ERC meeting in Mainz, 1998. Participation can be restricted only when justified, this has to be decided by the relevant WG when the mandate of the PT is established. This is also reflected in the MoU between ERC and ETSI.

Necessary action: Promulgate the said decision of 23rd ERC meeting regarding industry participation and the ERC/ETSI MoU among the Chairpersons of all PTs of ERC Working Groups'. Terms of Reference of all TGs and PTs within the ERC family to be reviewed to ensure that they reflect properly the policy established by the 23rd ERC meeting and are in line with the ERC/ETSI MoU.

Time frame: End of 2001.

1.3 The European Common Allocation Table should be further enlarged to include:

- relevant technical standards related to the use of spectrum including the harmonised standards relating to the provisions of the R&TTE Directive
- rolling action plans with time scales for European harmonisation.
- European Agreements on licensing and other regulatory issues

The information could either be included in the ECA directly or linked to national tables or databases. To further increase the commitment to the ECA as a strategic framework for frequency usage in Europe it should be considered to upgrade the ERC Report 25 to an ERC Recommendation. Agreement on the change of the structure of the ECA should be finalized by mid year 2001.

ERC response: CEPT Administrations recognise the current value of ERC Report 25 as a flexible and attractive tool for achieving harmonised strategic planning of spectrum in Europe. Therefore ERC is of the view that nothing could be gained by upgrading the ERC Report 25 into an ERC Recommendation. However, suggested enlargement of the ECA in the ERC Report 25 is supported, except inclusion of national implementation plans, which are seen as the strictly national measures.

Necessary action: New ECA structure developed and agreed by the WG FM, as given in Annex 1. Preliminary update of ECA to be carried out by the ERO.

Time frame: September 2001 meeting of WG FM.

1.4 The ERC Decision (97)01 regarding publication of national tables of frequency allocations should be reviewed and further developed in order to include as examples

- current use of spectrum for services and types of applications with timescales for introduction of ECA in each country
- information on national frequency allocations and national usage which could be accessible for industry across the 43 member countries
- requirements in accordance with the R&TTE directive
- relevant licensing information including information about charging and administrative spectrum pricing principles related to the use of the different frequency bands.

The revision of the ERC Decision should be finalized by end year 2002-2003.

ERC response: ERC and WG RR recognise the need for improvements in this area. Review of the ERC Decision (97)01 should include items suggested by the DSI as well as any other requirements, that e.g. may arise from the results of 1999 EC Telecom Policy Review. Possibilities to introduce harmonisation in the way of presenting national tables and means for automated access should be also studied. ERC already initiated this work and ERO is tasked with support of this work.

Necessary action: ERC Decision (97)01 to be revised.

Time frame: End of 2002.

Post-WRC-2000 recommendation 7:

- a) that a consultation forum be established to continue these organised consultations and discussions of market needs and frequency requirements;
- b) that the ERO should be invited to develop proposals for organisation of such a forum in close co-operation with industry and user organisation;
- c) that the ERC family should consider those proposals with the aim to establish the forum as soon as possible with a first meeting to be planned by the end of 2001.

ERC response: ERC supports the aim of this recommendation and sees some potential benefits in establishing such a consultation forum, e.g. along the lines as proposed in Annex 3. However establishment of a such forum should be properly co-ordinated with other CEPT initiatives in this respect (CEPT Radio Conference, CEPT Assembly, DSI process). Therefore this proposal should be discussed in the light of overall reform of CEPT, that is taking place in the year 2001. Final decision could be then taken at the beginning of 2002.

Necessary action: To consider this proposal as a part of CEPT reform initiative.

Time frame: 1Q/2002.

2. Refarming / Redeployment issues

It is recommended:

- 2.1 That the ERC should recognize that the refarming process is a national issue but that redeployment of spectrum has also bilateral and multilateral aspects. The ERC should study and review the refarming process in Europe. The work would need to take into account the very different legislative background for refarming in Europe.
- 2.2 That the ERC should collect information and develop guidance for administrations on economical aspects of frequency management and refarming including the following issues:
 - The economic value of the access to the frequency spectrum for users
 - Cost recovery of re-farming
 - Milestone review procedures or similar adaptive procedures should be introduced to control refarming of spectrum in a timely manner
 - The establishment of refarming funds combined with long term planning of the use of the spectrum in support of refarming.

- 2.3 That industry should be invited to participate in this work.
- 2.4 That this work should be initiated as soon as possible as an ongoing process and that reporting from the work should be prepared before the year 2002 prior to the planned implementation of the first phase of UMTS/IMT2000.

ERC response: ERC recognises the importance of refarming/redeployment as one part of the overall process of spectrum management. Therefore, also taking into account the post-WRC conclusion No.1, this issue requires further consideration and should be seen as ongoing task. Regarding the issue of industry participation in this work, see p. 1.2 above.

Necessary action: ERC Report to be developed by the WG RR on this issue.

Time frame: Report to be finalised by the end of 2002.

Post-WRC-2000 conclusion 1:

The conclusion and recommendations on the issue of refarming had also been referred to in the contributions and during the workshop in Lisbon [10 October 2000]. It was agreed to include the following sentence in the conclusions on this issue in the DSI Report:

It is recognised that the refarming process is a national issue. However, in some countries national legislation takes into account specific applications such as military or industrial frequency usage, which other European countries may benefit from.

ERC response: The first sentence of the statement is understood and may be supported, however the wording of the second sentence appears to be unclear and ERC notes that it should be understood in a way, that even the national refarming initiatives may have a certain international impact. Therefore, it appears that this post-WRC-2000 conclusion echoes the Recommendation 2.1 of the main DSI Phase III report.

Public cellular mobile in the 900 MHz and the 1800 MHz bands

3. Analogue cellular mobile in the 900 MHz band

Conclusion

Operators are still providing analogue cellular systems in the 900 MHz band where only limited investments are needed and there is still some customer need to use the analogue cellular services in these bands. The analogue systems are, however, less spectrum efficient and transfer to digital systems could therefore be promoted by an agreed date for the transfer on a European basis

It is recommended:

- 3.1 That while a transfer from analogue to digital services should be promoted and a commonly agreed date would support this transfer, the decision should be based on traffic loading developments and market needs. Administrations should develop a timetable with time-scales for the phase out of analogue mobile services on a national basis.

ERC response: ERC supports this recommendation.

Necessary action: NRAs to consider implementation of this recommendation in their strategies.

Time frame: Not applicable.

- 3.2 That continued use of analogue systems should not in any way hinder or limit the introduction of digital systems.

ERC response: ERC endorses this observation, but notes that existing licence conditions will need to be respected by national regulators.

Necessary action: No.

Time frame: Not applicable.

4. Usage of the 900 MHz and 1800 MHz GSM bands – for public mobile use only

It is recommended

- 4.1 That the frequency bands 890-915/935-960 MHz and 1710-1785/1805-1880 MHz as well as the GSM extension bands 880-890/925-935 MHz should in the medium to long term be reserved for public cellular mobile use only.

4.2 That other services such as the Fixed Service (point-to-point) should only be allowed in the above bands where coexistence with public mobile systems is possible i.e. in sparsely populated or rural areas where the frequency bands are not needed for mobile cellular systems.

ERC response: ERC supports these recommendations, because of the expected growth of public cellular mobile services in the near future. See also related DSI Recs. 13.1 and 22.2.
Necessary action: ERC through ECA should recognise a priority of public cellular mobile services in these frequency bands.
Time frame: During the review of ECA.

4.3 That the ERC Decision (97)02 March 1997 designating the frequency bands 880-890 MHz / 925-935 MHz should remain in force to meet the short to medium term requirements for extended spectrum resulting from the higher data rates required by the market.

ERC response: ERC supports this recommendation.
Necessary action: No further action, maintain Decision.
Time frame: Not applicable.

5. Refarming of GSM frequency bands to UMTS technology

It is recommended

5.1 That the 2nd generation frequency bands should only be refarmed for use by the UMTS/IMT2000 technology if required by market demands for high data rate services where those services can not be accommodated by GSM services including advanced services on GSM networks. Refarming should be based on national requirements and should only take place after UMTS/IMT2000 has been introduced in the core band and in the additional frequency bands as identified by WRC2000.

Post-WRC-2000 conclusion 2.1:

The workshop [Lisbon, 10 October 2000] agreed that frequency bands within the range 870-960 MHz may be considered for IMT-2000 technology in the longer term and that migration to 3rd generation technology should take place according to market demands on a national level. In the short to medium term only the bands within 880-960 MHz should be considered for IMT-2000 technology.

ERC response: The use of UMTS/IMT-2000 technology in the 900 MHz range is envisaged only within the GSM/E-GSM bands 880-915/925-960 MHz. However, this should happen only in the long term and would highly depend on the market developments for these services and resolution of complex regulatory issues that may arise. See also Post-WRC-2000 Conclusion No.2.2.
Necessary action: ERC PT1 should be invited to consider the question of future migration of GSM allocations into the IMT-2000 and possible timing for such actions in the light of overall planning of developments of IMT-2000 services in Europe.
Time frame: PT1 ToR refers.

Other services in the 900 MHz and 1800 MHz bands

6. Railways

It is recommended

6.1 That the ERC accept the importance of European wide designation of frequency spectrum for the UIC railway traffic control system and agree to transfer the ERC Recommendation 25-09 into an ERC Decision with commitment from European administration. The ERC Decision should be finalized by mid year 2001.

ERC response: ERC supports this recommendation.
Necessary action: Draft ERC Decision to be developed.
Time frame: Work on the development of the draft ERC Decision to start immediately after finalisation of ERC Response in March 2001.

6.2 That introduction of Direct Mode Operation within the UIC bands is considered within the framework of an ERC Decision

ERC response: ERC supports this recommendation, studies related to this subject already completed in the

WG SE with positive outcome..

Necessary action: To incorporate provisions for the DMO in the development of the ERC Decision on UIC frequencies.

Time frame: In the development of the new ERC Decision, see 6.1.

6.3 That a European-wide coordinated strategy to implement GSM-R frequencies for national and international railway networks should be developed by the UIC to form the basis for frequency coordination between administrations. Existing border coordination agreements should be taken into account in this work including existing multilateral MoUs.

ERC response: ERC supports this recommendation.

Necessary action: ERC in close cooperation with UIC to look for possibilities to expand the existing multilateral MoU on coordination of GSM-R frequencies to the pan-European level.

Time frame: UIC is expected to deliver a strategic plan on the use of GSM-R frequencies by mid of 2001, before work can start in ERC.

7. Cordless applications in the 900 MHz and the 1800 MHz bands

It is recommended

7.1 That in order to meet urgent requirements for new and innovative services within the 900 MHz band the ERC should agree on common time scales for the termination of sale of CT1, CT1+ and CT2 equipment. As the majority of users of CT1+ and CT2 are residential users it is important to agree on an early date and to provide competitive solutions. ERC agreement on common time-scales should be reached by the end of year 2000 with the aim to stop sale of equipment as soon as possible and achieve phase out of the above applications before year 2005.

ERC response: ERC endorses this recommendation. However the proposed measures are not workable under the new regulatory regime of the R&TTE Directive. Therefore it is proposed to agree on a common date of withdrawal of national radio interfaces, covering CT use.

Necessary action: ERC Decision(-s) establishing the list of CT applications and the intended time of their phase-out shall be prepared by the WG FM. WG RR will develop an ERC Recommendation or Report, to provide detailed guidance on means and ways of how such action could be carried out nationally.

Time frame: End 2001.

7.2 That the frequency band 1880-1900 MHz should continue to be used for DECT applications without band segmentation between applications or operators.

ERC response: ERC supports this conclusion.

Necessary action: None.

Time frame: Not applicable.

7.3 That ERC should study the frequency requirements presented as 2*1 MHz of dedicated spectrum to be designated for GSM CTS applications. This study should be built on a detailed justification of the market needs for this kind of application.

The study should be finalised by mid year 2001

ERC response: ERC would support the need for study, however so far ERC has neither received any requirements from Administrations or industry, nor a System Reference Document from ETSI for this kind of system.

Necessary action: Not for the time being.

Time frame: Not applicable.

8. PMR/TETRA

Conclusion

The 900 MHz band is expected to be intensively used for public mobile services as well for short range devices and other systems in future. The duplex bands 870-876/915-921 MHz has been reserved for TETRA applications and digital land mobile systems since 1992 but only the 400 MHz bands have so far been used for TETRA systems.

- A number of users requests access to the bands for new radio services including harmonised military uses for cross-border operation to meet the requirements for a harmonised military band for tactical radio links in Europe.
- TETRA restricted to private non-operator driven systems to meet local demands would probably facilitate sharing with military tactical links.
- Military deployment of TETRA technology for Tactical Radio Links would further facilitate sharing with other TETRA systems.

ERC response: These three conclusions have been considered during the development of a strategic plan for the 900 MHz band, see Rec. 8.1.
Regarding two last conclusions, namely on the effect of non-operator driven systems and the use of TETRA technology for Tactical Radio Links, currently there seem to be no sufficient justification for these two statements. See also Rec. 22.2 for discussion relevant to the issue of using TETRA technology for tactical radio relays.

It is recommended

8.1 That the ERC agree on a strategic plan for the future use of the 900 MHz band to meet the needs and requirements for the civil and military.

A suggestion for the strategic development of the 900 MHz band is attached in Annex I (of the DSI III Report)

ERC response: ERC supports this recommendation.
Necessary action: Done. Strategic plan for the future use of 900 MHz band has been developed as a part of response to the DSI Phase III and is submitted in Annex 2.
Time frame: Not applicable.

8.2 That the bands 870-876/915-921 MHz should primarily be reserved for

- Development of digital land mobile systems including TETRA systems
- Harmonised Military tactical radio links

Sharing studies should be conducted by the ERC between military Tactical Radio Links and digital land mobile systems including TETRA.

ERC response: ERC supports this recommendation on a provisional basis, until the sharing studies and studies of Digital PMR developments (see p. 8.3) are finalised, see also discussion under p. 22.2.
Necessary action: To perform necessary sharing studies in ERC WG SE.
Time frame: As soon as possible.

8.3 That the use of the bands 870-876/915-921 MHz for TETRA applications in accordance with the above strategic plan for the 900 MHz band should be reconsidered not later than end year 2004.

ERC response: ERC agrees that review of spectrum requirements for Digital PMR in the 900 MHz band is necessary and recommends that situation should be reviewed by the end of year 2002.
Necessary action: Review developments of Digital PMR in the 900 MHz band.
Time frame: End of 2002.

9. EISCAT

It is recommended

9.1 That national administrations concerned should consider co-ordination zones around the EISCAT sites in the northern Norway, Finland and Sweden when using the frequency band 925-935 MHz for mobile services.

ERC response: ERC supports this recommendation.
Necessary action: Administrations concerned are invited to consider this recommendation.
Time frame: Not applicable.

9.2 That any international planning of European wide frequency usage for military services within the band 925-935 MHz should consider sufficient protection of the EISCAT operations.

ERC response: ERC supports this recommendation.
Necessary action: Administrations concerned are invited to monitor this issue.
Time frame: Ongoing task.

9.3 That the band 925-935 MHz is not used for unlicensed applications such as Short Range Devices

ERC response: ERC supports this recommendation.
Necessary action: To take this view into account during the reviews of ECA.
Time frame: Not applicable.

10. UMTS/IMT-2000

Note: for discussion on refarming of GSM/E-GSM bands to the UMTS/IMT-2000 see section 5 of this report.

Conclusions

The UMTS/IMT2000 core bands were designated by the WARC92. Within Europe the frequency bands are designated by relevant ERC Decisions as well as EU initiatives. Refarming of the core bands have been carried out in most European countries with the aim of implementation in 2002-2005. Based on market estimations for IMT2000 extension bands in the order of 160 MHz are needed at hot spots and the issue of additional spectrum for UMTS /IMT-2000 is on the agenda for the WRC 2000 conference.

In order to ensure the highest degree of flexibility in the management of the spectrum and to allow gradual implementation of new and innovative services it is important

- that extensive sharing possibilities are investigated on a European as well as on a national basis
- that detailed consideration be given to the necessary refarming process. Refarming needs to take into account both the technological and market /financial problems in changing the use of a particular frequency band.

It is clear that the frequency requirements for UMTS/IMT-2000 will vary from country to country and from region to region. In particular this is relevant for the extension bands providing extensive capacity for multimedia services in areas with a high density of population and business activity.

It is recommended

10.1 That in the short and medium term an adequate amount of spectrum should be designated for UMTS/IMT2000 (155 MHz in accordance with ERC Decision (97) 07 and ERC Decision (99)25). All CEPT member countries are urged to implement this ERC Decision and to ensure that the required frequency bands will be made available to create the environment for multiple commercial operators to offer broadband services in a competitive environment.

ERC response: ERC supports this conclusion and recommendation.
Necessary action: Urge Administrations to implement ERC Decision (00)01, which complements ERC Decision (97)07.
Time frame: In accordance with provisions of the above ERC Decision.

10.2 That the implementation of additional spectrum for UMTS/IMT2000, to be identified at WRC-2000, is considered within CEPT following the WRC, with a view to determining harmonised implementation of UMTS/IMT2000 expansion spectrum in Europe. The ERC should develop appropriate ERC Decisions taking into account the possibilities for frequency sharing between UMTS/IMT2000 and existing services. Implementation of IMT2000 extension bands should be based on market demands.

Post-WRC-2000 conclusion 2:

The workshop [Lisbon, 10 October 2000] concluded that an ERC Decision describing the spectrum management framework for introduction of IMT-2000 in Europe may be developed in particular on border coordination and channelling arrangements but that sufficient flexibility should be kept regarding the timescales for the process. Furthermore Europe should keep flexibility for the further discussions on channelling plans and spectrum arrangements within the ITU-R Working Party 8F.

ERC response: ERC supports this recommendation, as complemented by the post-WRC conclusion No. 2, with the understanding that an ERC Decision referred in that conclusion should be addressing

additional IMT-2000 bands, in particular the 2.5 GHz band.
Necessary action: Establishment of PT1 by the ERC already provides necessary response to this item.
Time frame: ERC PT1 Terms of Reference refer.

Post-WRC-2000 conclusion 2.2:

Migration to IMT-2000 technology within the 1800 MHz band would require a global solution that might include both the 1800 MHz band and the 2500 MHz band. It is important to allow for the continued use of GSM technology within the 1800 MHz band as long as required by market needs. Due to the fact that a number of basic market and traffic estimations for IMT-2000 including the level of asymmetric traffic is still unknown it is recommended that channelling plans and frequency arrangements be developed with a high degree of flexibility.

ERC response: Some Administrations within the WG FM expressed serious concern over prospect of including GSM-1800 bands into a single channeling solution with the 2500 MHz band, because of legal obligations and existing plans to use those bands for original GSM-1800 applications for many years to come. This idea should be further discussed within the ERC PT1. See also response to post-WRC-2000 conclusion No. 2.5 (c).

Necessary action: Establishment of PT1 by the ERC already provides necessary response to this item.
Time frame: ERC PT1 Terms of Reference refer.

Post-WRC-2000 conclusions 2.3:

- a) That the band 2500-2690 MHz should be optimised for IMT-2000 within the timeframe 2010 but that for particular high traffic areas the bands could be required from 2005. The bands 2500-2520 and 2670-2690 MHz should be included into the overall strategy for terrestrial networks in the longer term.
- b) That a global channelling plan should be developed and that a flexible solution, which takes into account compatibility with existing services, should be achieved.
- c) To meet the expected demand for asymmetric traffic expected by the year 2010 all the IMT-2000 bands should be considered together in a global frequency arrangement.

ERC response: The point a) is supported in principle, however the statement regarding the inclusion of 2x20 MHz of MSS allocations into the strategy for terrestrial developments should only be understood as the consideration of one possible scenario, of MSS developments proving to be unsuccessful, in addition to the other, hopeful scenario of successful MSS developments.

The point b) may be supported.

The point c) contains too rigid statement, because combining all IMT-2000 extension bands into a global frequency arrangement could mean that all countries would have to make available all those bands, even if not justified by real traffic load. Therefore such combining of all bands should be seen only as one of the possibilities, which may be introduced only upon clearing all of the related concerns.

Necessary action: Establishment of PT1 by the ERC already provides necessary response to this item.
Time frame: ERC PT1 Terms of Reference refer.

Post-WRC-2000 conclusions 2.5:

- a) It is recommended that further detailed work needed on frequency management issues of the implementation of IMT-2000 should be carried out and co-ordinated in close co-operation between administrations, industry, organisations and users.
- b) An ERC Task Group such as the Task Group 1 of the ERC with open representation from industry and users should be established.
- c) The ERC Task Group should also be mandated to develop the strategic framework for frequency arrangements for future satellite components of IMT-2000.
- d) The sharing studies between Radionavigation service and other services such as mobile applications and ENG/OB applications in the band 2700-2900 MHz should be continued even if the topic is only expected on the WRC-2006.

ERC response: These conclusions may be fully supported.

Necessary action: Establishment of PT1 by the ERC already provides necessary response to this item.
Time frame: ERC PT1 Terms of Reference refer.

Post-WRC-2000 conclusion 3:

The ERC should continue the work to provide possibilities for HAPS in future and in particular in connection with WRC-2003.

ERC response: This conclusion is fully supported, with the understanding that the “possibilities” mentioned for HAPS in future are those foreseen by Resolution 221 (WRC-2000) and that once technical and operational feasibility and developments are proved to be successful, other possibilities could be studied.

Necessary action: Establishment of PT1 by the ERC already provides necessary response to this item.

Time frame: ERC PT1 Terms of Reference refer.

The Broadcasting Satellite Service in the band 2520-2670 MHz

Conclusion on the BSS service

The BSS service in the band 2520-2670 MHz is restricted to national and regional systems for community reception in accordance with the above footnote S5.416. Furthermore the use of the band for BSS is subject to agreement under No. S9.21.

The project as described is expected to offer a worldwide coverage. The BSS systems will, however, be filed as regional systems in order to comply with the limitations in footnote s5.416. Furthermore the use of the band for BSS services should take all necessary steps to protect the radio astronomy service in the band 2690-2700 MHz.

Doubts have been expressed at the DSI workshop whether European administrations would accept the use of the band 2520-2670 MHz for BSS services in light of the special conditions for this services as indicated in the Radio Regulations.

It is also indicated that the frequency band 2500-2690 MHz is the prime candidate band as extension band for IMT2000 applications in Europe and that this band has been supported for IMT2000 by European administrations. Preliminary studies indicate that adoption of this band for UMTS/IMT2000 extension would have an adverse impact on the possibility to use the BSS allocation.

ERC response: ERC supports this conclusion. However, if BSS can operate in spite of dense IMT-2000 deployment, and on the understanding that BSS pfd limit will enable full protection of IMT-2000 (to be defined by ERC PT1), then BSS could operate without impairing the development of IMT-2000. CEPT priority should be kept in mind and, depending on the results of sharing studies conducted by the ITU-R, BSS use may be permitted only provided that it shall not cause interference to or claim protection from, or otherwise impose constraints on operation or development of IMT-2000 (including impairments of traffic capacity and quality of service). With regard to the sharing with other terrestrial systems, sharing conditions resulting from studies called by Resolution 735 (WRC-2000) may also need to be considered.

Necessary action: Sharing studies with IMT-2000 to be carried out by ERC PT1 and with other terrestrial systems to be carried by the WG SE and submitted into the ITU-R

Time frame: To be associated with preparation for WRC-03.

11. Mobile Satellite / IMT-2000 satellite component

Conclusions

Mobile Satellite spectrum has been identified in Europe through international allocations as well as ERC Decisions on frequency bands for UMTS and the ERC Decision on S-PCS. Spectrum is made available in parts of the mobile satellite bands supported by the ERC Decision (97)04 on transitional arrangements and on the Milestone Review process.

Currently 2 * 115 MHz is allocated for MSS services within Europe within the range 1-3 GHz. Effectively the MSS spectrum is only 2*99.5 MHz with the proposals for UMTS extension bands for the terrestrial component.

Post-WRC-2000 conclusions 2.4:

- a) That there is a stated need for more spectrum for the Mobile Satellite Service in Europe.
- b) That any further development of frequency spectrum for mobile satellite services within the DSI Phase III range (862-3400 MHz) should be based on detailed market development needs.
- c) That studies of the MSS needs should be taken forward to 2001 in order to meet the timescales for WRC-2003.
- d) If the TFTS service is closed down following the recommended review of the frequency requirements for the service in 2001, the MSS may be considered as possible user of the bands 1670-1675/1800-1805 MHz.
- e) That higher priority should be given to terrestrial mobile communications within the DSI frequency range 862-3400 MHz.

ERC response: Point a) currently is not supported.
 Regarding b-c), see discussion under p. 11.2.
 Regarding d), see discussion under Rec. 14.4.
 Regarding e), it should be noted that it should be understood to mean priority of terrestrial mobile services only versus mobile satellite services within the bands allocated to mobile

service. See also response to Rec. 1.1.

It is recommended

11.1 that the current spectrum can accommodate the current requirement for MSS spectrum in Europe

ERC response: ERC supports this conclusion and recommendation.
Necessary action: None.
Time frame: Not applicable.

11.2 that a detailed study of the needs for future spectrum for the mobile satellite service in Europe be initiated by year 2002

ERC response: ERC supports this recommendation and underlines that in this respect MSS should be seen as including the satellite component of UMTS/IMT-2000.
Necessary action: Studies to be initiated as suggested by the DSI. In accordance with the post-WRC conclusion No. 2.4, the study should be initiated already in the year 2001.
Time frame: Initiation in 2001, completion – in time for WRC-03.

11.3 that necessary refarming initiatives are taken to free the spectrum within the existing MSS allocations for MSS purposes in Europe

ERC response: Once the demand is clearly identified, then a common date for availability of MSS spectrum would be beneficial due to a regional or worldwide nature of mobile satellite services. However, it should be recognised that these refarming initiatives are to be taken on a national basis, subject to market demands, see also 2.1 for further information on this issue.
Necessary action: Developments in this area to be reviewed regularly.
Time frame: Ongoing task.

11.4 that as to the use of the band 2500-2690 MHz for UMTS/IMT2000 terrestrial and satellite component, transitional arrangement for the fixed service in line with the arrangements regulated in ERC Decision (97)04 be introduced for the bands 2500-2520 MHz and 2670-2690 MHz in order to make these bands available for MSS systems. An ERC Decision on transitional arrangement should be finalized before end 2001.

ERC response: ERC supports the need for an ERC Decision on transitional arrangements. However, overall decision of the future use of 2500-2690 MHz band should be taken first within the framework of ERC PT1 work. It should be also noted that the aim to finalise Decision on transitional arrangements before end 2001 may be too optimistic, since it unlikely that channeling arrangements and other requirements of IMT-2000 will be clear well before that date.
Necessary action: To be taken up by the ERC PT1 as necessary, in alignment with the real developments of IMT-2000. Account should be also taken of Resolution 225 (WRC-2000).
Time frame: ERC PT1 timing.

12. Fixed Service

Conclusion

The Fixed Service within the DSI range has already been harmonized and administrations have specific plans to introduce these harmonization initiatives.

Even if the channel arrangement in ERC Recommendation T/R 13-01 were partly used by military fixed applications further harmonization of the military fixed use would be an advantage in the longer term.

It is recommended

12.1 That the channeling arrangement within the ERC Recommendation T/R 13-01 is not changed. This also includes the frequency bands 2520-2670 MHz that on a national/geographical basis is expected to be shared with the IMT2000 extension bands.

ERC response: ERC supports this conclusion and recommendation.
Necessary action: Maintain ERC Recommendation T/R 13-01.
Time frame: Not applicable.

13. Fixed Wireless Access

Conclusion

Initiatives have been taken by the ERC to harmonize fixed wireless access applications (FWA) in frequency bands above 3 GHz (ERC Recommendation 13-04).

It is recommended

13.1 That the use of GSM 900 and GSM1800 frequency bands for FWA be limited to areas where further spectrum for mobile use is not needed. Geographical sharing with public mobile systems should be agreed on a national basis.

ERC response: ERC supports this conclusion and recommendation, since they are fully in line with the DSI Rec. 4.2 above.

Necessary action: Administrations are invited to consider this recommendation. No action from the ERC.

Time frame: Not applicable.

13.2 That FWA should in general be developed in frequency bands above the DSI range i.e. the frequency bands 3.4-3.6 GHz as well as higher bands as mentioned in the ERC Recommendation 13-04. This is important to release the pressure on mobile bands within the DSI range.

ERC response: ERC supports this recommendation.

Necessary action: None.

Time frame: Not applicable.

13.3 That further studies are conducted to clarify the compatibility possibilities between FWA and radiolocation systems in the bands 3.1 - 3.6 GHz taking into account the importance of this particular band to the civil and military radar and radiolocation applications.

ERC response: Studies made by FM PT 31 in the 3.1-3.4 GHz range already completed with negative results. Any further studies on compatibility between radio location systems and FWA should be addressed by affected Administrations to the WG SE when and if necessary, under the usual procedures.

Necessary action: None.

Time frame: Not applicable.

It is further recommended that administrations consider introduction of local loop unbundling in the local access, as this is believed to release the pressure on frequency requirements for FWA to new competing operators.

ERC response: ERC supports this recommendation.

Necessary action: Administrations are invited to consider this recommendation. No action from the ERC.

Time frame: Not applicable.

14. Terrestrial Flight Telecommunications System (TFTS)

Conclusion

The service has been operational for a number of years without extensive developments. Further applications within the TFTS system are planned including GSM connectivity but the future market for the service has been questioned.

It is recommended

14.1 That a review of the system as a terrestrial system in Europe and the continued need for TFTS spectrum should take place in year 2001-2002 (5-6 years after the development of the TFTS plan)

ERC response: ERC supports this recommendation.

Necessary action: TFTS allocation to be reviewed by the WG FM with a view on the actual service developments (to be inserted into the WG FM work programme).

Time frame: End 2001.

14.2 That TFTS operators should take part in such a review

ERC response: ERC supports this recommendation, but believes that also ICAO, IATA and other relevant civil aviation organisations and airline industry should be invited to take part in such review.
Necessary action: Invite all aforementioned parties to take part in the review.
Time frame: At the beginning of the review.

14.3 That the frequency bands 1670-1675 MHz 1800-1805 MHz should continue to be allocated for TFTS subject to the result of the review mentioned under 14.1.

ERC response: ERC supports maintaining of TFTS allocation until 2001-2002. After that date, decision on a future use of these bands to be taken based on outcome of the review referred to in 14.1 above.
Necessary action: Not for the time being.
Time frame: 2001/2002.

14.4 That such a review should also consider the possible use of the bands for the Mobile Satellite Service including the aeronautical public correspondence applications. A possible use of the bands for the Mobile Satellite Service should if applicable take place from year 2005. The bands could also be considered for other services or systems such as the SAB-SAP in association with the band 1785-1800 MHz etc.

ERC response: ERC supports this recommendation in principle. Consideration of use of the current TFTS bands for services other than those providing aeronautical public correspondence should take place only if the review mentioned in 14.1 above produces results unfavourable for TFTS. Use of these bands for the MSS should be considered only in the light of overall review of MSS spectrum requirements, as foreseen in 11.2 above.
Necessary action: Not for the time being.
Time frame: See 14.1.

15. Broadcasting including DAB

It is recommended:

15.1 That in order to meet the requirements for frequency spectrum and frequency availability for T-DAB it is important to bring forward the general transition from analogue to digital technology in the Broadcasting sector, including both Television and Sound Broadcasting. It is therefore suggested that a planning conference to revise the Stockholm 61 frequency plan be established as soon as possible. Prior to the frequency planning conference the ERC should develop a strategic plan with timescales and milestones for the transition from analogue to digital technology in the Broadcasting sector.

ERC response: Although revision of Stockholm (1961) plan falls clearly outside the scope of DSI Phase III, it may be mentioned that the need for such review is already confirmed by the ERC and preparatory work already initiated.
Necessary action: Work carried out in the WG FM / FM PT 24.
Time frame: Not applicable.

15.2 That in connection with such a strategic plan any simul-casting should be limited as much as possible in order not to waste frequency spectrum.

ERC response: ERC supports this recommendation in principle, however major implications of simulcasting should be considered in the broadcasting bands outside the scope of the DSI Phase III.
Necessary action: This is being considered in the work of FM PT 24 / PT 32.
Time frame: Not applicable.

15.3 That as a matter of urgency a detailed review of the spectrum requirements in Europe for T-DAB and S-DAB should take place.

ERC response: This work is already initiated by the ERC and currently being taken forward by the FM PT

32.
Necessary action: Already done.
Time frame: Not applicable.

15.4 That there is a requirement in the short term for further blocks of spectrum in the band 1452-1492 MHz. Dependent upon the above review a European planning meeting should be arranged before the end of year 2001 with the aim to plan for additional 7 blocks of spectrum for T-DAB.

ERC response: This is already confirmed by the ERC and appropriate work being taken forward by the FM PT 32. Date for the replanning conference is set by ERC to June 2002.
Necessary action: Mandated to the FM PT 32.
Time frame: June 2002.

16. Electronic News Gathering (ENG) / Outside Broadcasting (OB)

Conclusion

Introduction of digital technology will allow improvements of the use of spectrum for ENG/OB services. The channel spacing may be reduced from 20 MHz in analogue systems to 8 MHz channels. For some ENG/OB applications wide band channels are, however, still needed.

ERC response: ERC supports this conclusion. However it should be noted that appropriate channel spacing for digital systems may be 10 MHz, corresponding to 8 MHz of necessary bandwidth.

It is recommended

16.1 That a general review of the frequency usage for ENG/OB (including equipment on board helicopters and aircraft's) is carried out within the ERC in order to introduce digital technology as soon as possible. The review should also include SAB/SAP applications.

ERC response: ERC supports this recommendation.
Necessary action: WG FM established new FM PT 41 to carry out these studies, with the aim of eventual review and enlargement of ERC Rec. 25-10, see p. 16.5.
Time frame: FM PT 41 to start work in 1Q/2001, studies to be completed by May 2002.

16.2 That a review should aim at harmonizing spectrum for ENG/OB applications in Europe including both harmonised frequency bands and harmonised tuning ranges.

ERC response: ERC supports this recommendation.
Necessary action: This issue to be taken by the FM PT 41 within the frame of the review.
Time frame: FM PT 41 timing.

16.3 That the studies of possible sharing between ENG/OB and Radionavigation/Radiolocation services within the band 2700-3400 MHz should be continued taking into account the importance of this particular band to the civil and military radar and radiolocation applications.

ERC response: ERC supports finalisation of the studies. At the same time, the WRC-2000 decided to carry out sharing studies between various services in the 2.7-2.9 GHz and also consider upgrade of radiolocation allocation in the 2.9-3.1 GHz range at the WRC-03. See also Post-WRC-2000 Conclusion No. 2.5 and p. 22.4.
Necessary action: Continue studies in the SE PT 34.
Time frame: To be associated with preparation for WRC-03.

16.4 To study possibilities offered by the mobile service networks to accommodate new gathering applications.

ERC response: ERC supports this recommendation.
Necessary action: This issue to be taken up by the FM PT 41 within the frame of the review, referred in 16.1.
Time frame: FM PT 41 timing.

16.5 That the ERC Recommendation 25-10 be enlarged to cover general ENG/OB applications and harmonized frequency bands. As the use of frequency spectrum for ENG/OB is closely linked to the consideration of extension bands for UMTS/IMT2000 it is suggested that this work be initiated as a matter of urgency.

ERC response: ERC supports this recommendation.
Necessary action: Recommendation 25-10 to be reviewed and possibly enlarged as a result of work of FM PT 41. This work should also address SAB/SAP applications, and be based on the study referred to in p. 16.1 above.
Time frame: May 2002.

17. Short Range Device Applications

Conclusions

Short Range Device applications are regulated within the ERC Recommendation 70-03 and a lot of efforts by industry and regulators ensure that a regulatory environment is maintained for those systems.

It is expected that the market for short range devices will increase exponentially, in particular the Bluetooth technology, RadioLANs and RFID devices but also different kinds of alarm systems are expected to increase in numbers over the coming years.

For the 862-870 MHz band it is recommended

17.1 that a strategic plan be developed by the ERC for the frequency range 862-870 MHz with extensive sharing possibilities and that users and in particular the military are invited to contribute to this work.

ERC response: ERC supports this recommendation. The draft strategic plan for SRDs in the frequency band 862-870 MHz to be developed by the SRD MG and submitted to WG FM for approval and for further incorporation into overall plan for the 900 MHz band.
Necessary action: Draft Plan for the band 862-870 MHz to be developed by the SRD MG.
Time frame: September 2001.

17.2 that the plan should include the use of Spread Spectrum technology for all SRD applications in the 862-870 MHz in order to achieve the highest degree of flexibility

ERC response: ERC expresses doubts on necessity to limit all SRD applications in this band to the Spread Spectrum technology only. The plan for SRDs in this band should aim to accommodate both narrow-band and Spread Spectrum applications.
Necessary action: This issue to be studied in development of strategic plan, see p. 17.1.
Time frame: September 2001.

17.3 that the existing services in the band 868-870 MHz should be allowed with narrow band applications in accordance with the SRD Recommendation

ERC response: ERC supports this recommendation.
Necessary action: This policy should be taken into account in development of strategic plan, see p. 17.1.
Time frame: September 2001.

17.4 that the sharing possibility between Spread Spectrum and CT2 be studied with the aim to gradually implement the band 864-868 MHz for SRD while the CT2 applications in the band are phased out

ERC response: Sharing studies of CT2 vis-à-vis Spread Spectrum applications will be necessary if the Spread Spectrum SRDs are introduced in the 862-870 MHz band.
Necessary action: To be decided when the strategic plan for the SRDs in the band 862-870 MHz is approved.
Time frame: Depending on approval of the strategic plan.

17.5 that studies should be carried out on the application of wide band and narrow band channels within the same frequency band . In particular protection of safety of life applications such as the Social Alarms within the 868-870 MHz band needs to be considered.

ERC response: ERC supports this recommendation.
Necessary action: This policy should be taken into account in development of strategic plan, see p. 17.1.
Time frame: September 2001.

For the 2400-2483.5 MHz band it is recommended

17.6 that a strategic plan for the future use of the frequency range 2400-2483.5 MHz be established. As this band is one of the few bands available on a global basis for SRD the strategic plan should take into consideration the developments in other parts of the world and the developments with the ITU-R.

ERC response: ERC supports this recommendation.
Necessary action: The task of developing the Draft Strategic plan for SRDs in the 2.45 GHz ISM band already given to the SRD MG. Draft strategic plan to be submitted to WG FM for approval.
Time frame: September 2001.

17.7 that in order to increase the sharing possibilities in the 2.45 GHz range and to meet the increased requirements spread spectrum technique should in general be considered for SRD applications in this band.

ERC response: ERC supports this recommendation in principle, with the understanding that the requirement to use Spread Spectrum technology is not made restrictive.
Necessary action: None.
Time frame: Not applicable.

17.8 that frequency solutions for RFID applications within the 2400-2483.5 MHz band should be found. That the studies carried out within the SE Working group on the use of 4 W e.i.r.p RFID systems in a dedicated 8 MHz band should be considered and that similar studies be carried out for the 900 MHz band

ERC response: Regarding the studies of possible use of RFID in the 900 MHz, WG FM and ERC Plenary decided not to consider such use. The issue of RFID use in the 2.45 GHz band is being considered in the WG FM now and SRD MG is asked to provide further input.
Necessary action: This issue to be studied during the development of strategic plan, see p. 17.6.
Time frame: September 2001.

17.9 that RLANs in the longer term should only use the 5 GHz bands (HIPERLANs) and thus release the pressure on the band 2400-2483.5 MHz.

ERC response: For the time being, HIPERLANs in the 5 GHz band may be seen as a complementary solution to the RLANs in the 2.45 GHz band. Therefore ERC does not see sufficient justification for phasing out RLANs from the 2.45 GHz band.
Necessary action: The use of RLANs in the 2.45 GHz band should be further considered within the framework of development of strategic plan for SRDs in this band, see p. 17.6.
Time frame: September 2001.

17.10 that in view of the increasing requirement for SRD applications in the 2.4 GHz band including the Bluetooth technology and RFID the use of the band 2400-2483.5 MHz for the Fixed service and for ENG/OB applications should be reduced.

ERC response: ERC supports the reduction of FS use in this band. However the question of ENG/OB use of this band should await results of sharing studies.
Necessary action: The ENG/OB use of this band to be further studied within the overall review of ENG/OB use, see p. 16.1.
Time frame: 2002.

17.11 that Ultra Wide Band (UWB) technology should be urgently considered and a proper regulation established. Liaison should take place with other parts of the world on the deployment of this technology in order to achieve a world wide harmonisation if possible

ERC response: ERC supports the need for urgent consideration of this issue, taking into account concerns expressed by the aeronautical community, whose services may be affected, and also by Administrations, regarding potential legal problems, e.g. with UMTS licensees. SRD MG is already tasked with this. The CEPT workshop on UWB is planned for 20 March 2001.

Necessary action: Already initiated, as described above. Report to be developed on this issue.

Time frame: To be finalised by the end of 2002.

17.12 that studies should be initiated on possible introduction of radiation limits for ISM applications. These studies should be linked to the ITU-R activities regarding the use of the 2.45 GHz ISM bands.

ERC response: Currently ERC does not see the need to initiate such studies, however the initiatives from other regions within the ITU should be followed. Meanwhile WG RR has recently adopted the ERC Report 83 “Interference from ISM machines”, which gives guidance on treating cases of interference from out-of-band emissions from ISM.

Necessary action: None for the time being.

Time frame: Not applicable.

18. Aeronautical Telemetry

Conclusion

The requirement for telemetry applications will increase and further spectrum is needed to accommodate aeronautical telemetry developments in the medium to long term.

It is recommended

18.1 That administrations should use improved technology for aeronautical telemetry systems through better coding or more efficient modulation. Improved technology could provide dynamic management of the band in sharing aeronautical telemetry with other services.

ERC response: ERC supports this recommendation, aiming to improve utilisation efficiency of the existing aeronautical telemetry allocation in the band 2.3-2.4 GHz.

Necessary action: Concerned Administrations are urged to take account of this recommendation.

Time frame: Not applicable.

18.2 That the studies of possible sharing between Aeronautical telemetry and Radionavigation/Radiolocation services within the band 2700-2900 MHz should be continued taking into account the importance of this particular band to the civil and military radar and radiolocation applications

ERC response: ERC supports continuation of these sharing studies.

Necessary action: Studies carried out by the SE PT 34.

Time frame: In the SE PT 34 timing.

19. Radio Astronomy

It is recommended

19.1 that detailed consideration be given to the future protection of the Radio Astronomy Service in connection with the expected increased use of the frequency range 862-3400 MHz, in particular in the bands mentioned in S5.149 and their adjacent bands, noting that emissions from spaceborne or airborne stations can be particularly serious sources of interference to the Radio Astronomy Service.

ERC response: ERC supports this recommendation, with the understanding that this consideration should take place when discussing new allocations, especially to services, which are most likely to cause interference to the Radio Astronomy installations, e.g. Mobile Satellite Services.

Necessary action: Administrations are urged to establish appropriate mechanisms for protection of Radio Astronomy Services.

Time frame: Not applicable.

20. Amateur Service

It is recommended

20.1 that in connection with planning for future WRCs the ERC should consider to develop a European proposal for amendment of RR S5.282 to allow the amateur satellite service in the band 1260-1270 to operate also in the Space to Earth direction. Such a proposal must be based on proper sharing studies vis a vis the other services in the band.

ERC response: This option may be considered only in the longer term, for WRCs beyond WRC-03.
Necessary action: Not for the time being.
Time frame: Not applicable.

20.2 That the ERC should consider to include small segments of the frequency bands 1240-1300 MHz and 2300-2450 MHz in the EU footnotes EU17 and EU23 respectively

ERC response: This option may be considered by the ERC in the longer term.
Necessary action: Not for the time being.
Time frame: Not applicable.

21. Radionavigation / Radionavigation Satellite**It is recommended:**

21.1 That the ERC should take initiatives to develop a strategic plan for the future civil and military use of navigation and landing systems in close cooperation between interested parties including EUROCONTROL, Military interests in Europe and the National frequency management authorities.

ERC response: It is understood that such strategic plan is not within the authority of ERC, however initiative may be taken by the ERC through organisation of an exchange of views on relevant spectrum management aspects of such a strategic plan. All interested parties (ICAO, IMO, EUROCONTROL, EC, etc.) should be invited to participate in such exchange of views. Upon development of such plan, it should be also promoted through the ITU to the worldwide level.
Necessary action: Organise a workshop.
Time frame: Year 2001/2002.

21.2. That such a plan should take into account the availability of new radionavigation systems being developed and bearing in mind the need for interoperability of navigation means.

ERC response: ERC supports the aim of this recommendation, again reiterating that it is not within the authority of ERC to take final decision on the content of such strategic plan.
Necessary action: To be taken within the planning exercise, if and when it is initiated between interested parties.
Time frame: Within the time frame of planning.

Post-WRC-2000 conclusion 4:

ERC should take on further compatibility and sharing studies as requested in the WRC-2000 resolutions on RNSS in order to ensure a satisfactory outcome of the WRC-2003.

ERC response: ERC supports this conclusion.
Necessary action: Studies should be initiated within the WG SE, with the involvement of necessary external expertise, e.g. GALILEO project, US initiatives.
Time frame: Initiated in 2001 and completed in time for WRC-03.

22. Military**It is recommended:**

22.1 that the ERC should recognize the need for harmonized frequency bands for military tactical links and as far as possible meet the requirement of

- 2*5 MHz European wide in 790-960 MHz
- 2*45 MHz European wide in 1350-2690 MHz

ERC response: ERC recognises the need for harmonisation of frequency bands for tactical radio relay links and supports identification of such bands.

Necessary action: Necessary actions are reflected for each of the bands in p.p. 22.2 and 22.3 respectively.
Time frame: See p.p. 22.2 and 22.3.

22.2 that the frequency band 870-876/915-921 MHz should be identified as the harmonised military band for tactical radio links in Europe. In order to facilitate sharing with Digital Land Mobile systems using the TETRA technology initiatives should be taken by the military to use technologies which are compatible with TETRA, preferably by applying the TETRA standard

Continued sharing with existing services on a geographical basis should where possible take place in the bands:

- 790-862 MHz shared with Broadcasting
- 880-890/925-935 MHz shared with E-GSM
- 876-880/921-925 MHz shared with UIC

ERC response: ERC supports identification of the band 870-876/915-921 MHz for harmonised use by Military TRRL, on a shared basis with Digital PMR. This conclusion is pending results of sharing studies and studies of frequency requirements and real market developments of Digital PMR. All these studies should be finalised and market demand of Digital PMR in the 900 MHz range to be proven by the end of year 2002 at the latest. Until that time, Military TRRL may access this band based on national arrangements.

If by completion of the review at the end of 2002 there remain any unsolved problems of shared use of the above band, then another solution shall be sought by the WG FM, possibly including spectrum immediately below the DSI Phase III range. This would anyway aim to satisfy the recognised need of 2x5 MHz of harmonised spectrum for Military TRRL below 1 GHz.

Regarding the use of TETRA technology, currently there seem to be not sufficient justification for this statement; therefore ERC would see neither need nor possibility to impose use of any specific technology for military tactical radio relays in this band.

Regarding the options of sharing with other services, suggested in the three bullets at the bottom of the recommendation box, it should be noted that the first option falls outside the scope of DSI Phase III, therefore is not addressed in this report. The two last options are supported and reflected appropriately in the strategic plan for the use of 900 MHz band.

Necessary action: Identification of the band 870-876/915-921 MHz for military tactical radio relay links to be considered within the framework of development of the overall strategic plan for 900 MHz band, see 8.1 and 8.2.

Time frame: To be finally resolved by end of 2002.

22.3 that in general military tactical links should use spectrum within the frequency range 1350-2690 MHz and within the following bands

- 2025-2110 MHz
- 2200-2290 MHz

The bands are available as harmonized military bands in the short term. The military should therefore ensure that military radio equipment cover this these bands.

ERC response: ERC supports this recommendation, also noting that it is aligned with the decision taken by the WG FM meeting (Naples, Jan 2000) on update of ECA footnote EU15. Furthermore, it should be noted that within so identified bands, the NJFA already earmarked the bands 2025-2070/2200-2245 MHz as the 2x45 MHz solution for near/cross-border operation of military TRRL.

Necessary action: The said NJFA solution to be promoted for inclusion into the ECA.

Time frame: Within the review of ECA.

22.4. That special attention should be given to the needs for military radionavigation and radiolocation services within the band 2900-3400 MHz as this band provides the optimum frequency range for a wide range of military radar applications.

Post-WRC-2000 conclusion 5:

It is recommended that the ERC support the upgrade of the Radiolocation Service in the band 2900-3100 MHz at a future conference.

ERC response: ERC supports this recommendation and post-WRC-2000 conclusion No. 5. The band 2.9-3.1 GHz should be protected for use by radars in the very long term. It forms part of an essential core radar band (2.9-3.4 GHz), which, due to its physical properties and in view of emerging new technologies, constitutes a spectrum resource of particular and growing importance for the operation of radiolocation systems.

Necessary action: Support should be given to possible upgrade of radiolocation allocation to Primary in the frequency band 2.9-3.1 GHz at the WRC-03, pending successful completion of necessary sharing studies.

Time frame: In the time frame of preparation for WRC-03.

23. Miscellaneous

Post-WRC-2000 conclusions 6:

- a) In order to avoid co-ordination constraints between BSS and IMT-2000 within the band 2500-2690 MHz the ERC should study a proposal to suppress the frequency allocation for BSS within this band.
- b) Possible feeder links for non-GSO mobile satellites within the 1.4 GHz band should provide sufficient protection to the existing and foreseen applications in this band in accordance with the ECA.
- c) The ERC should initiate work on the frequency arrangements for next generation public safety services in preparation of the WRC-2003.

ERC response: Conclusion a) is not supported, see discussion in section on the Broadcasting Satellite Services in the band 2520-2670 MHz.
Regarding b), this conclusion could be supported with the understanding that the possible allocation to feeder links (WRC-03, Agenda item 1.16) is justified by real requirements and will not constrain development of existing services.
Regarding c), this issue should be further studied by the WG FM, aiming to develop a common European position on this matter, in time for WRC-03.

New outline of the European Common Allocation Table (ERC Report 25)

Based on the recommendations from the DSI, in particular the DSI Recommendations 1.1 – 1.4, and the considerations at the FM37 meetings the attached draft outline of the ECA was suggested and approved by the WG FM meeting in Interlaken, 29 January – 2 February 2001.

The new structure is in line with the existing ECA regarding:

- Frequency bands;
- RR Region 1 Allocation;
- European Common Allocation with EU footnotes related to the allocation .

The utilisation of the sub-bands contains information about:

- EU footnotes related to the utilisation;
- Information about ERC Decision/recommendation and technical standard including harmonised standard relevant to the utilisation;
- Supplementary information about the use of the sub-band with frequency pairing etc.

The ECA is build as an Database (Access) with possibilities to display all or a limited number of columns in the publicised version of the ECA in paper format or on the ERC web site as agreed by the FM WG and the ERC. The outline of the rearranged table is given in Table 1.

Updating strategy

The FM WG has agreed that update of the ECA should take place with intervals of 2-3 years to update the table with new and revised allocations resulting from ITU World Radio Conferences.

With the fast changing frequency requirements in the European telecommunications market it may, however, be necessary to update the ECA with shorter intervals than 3 years.

Information about implementation and future use

In line with the industry requirements expressed during the DSI phase III the FM37 has considered a proposal to include in the ECA database information about national implementation of each of the frequency utilisation as well as information about licensing requirements.

Such general overview information may be provided by administrations regularly based on a simple questionnaire from the ERO as it is done successfully with Short Range Devices (ERC Recommendation 70-03). The information may be integrated in the ECA itself or provided as an Annex to the table for information.

As the date 2008, which is the target date for implementation of the ECA provisions, is approaching it has also been suggested to include columns about the future use of the European Common Allocations in the ECA. All information should of course be based on agreements within the FM WG.

The preliminary outline of such information is indicated in Table 2 of this document.

The FM37 appreciated the advantage for industry and users of such information. In order not to duplicate the work in connection with Report 25 and the new ERO Frequency Information Search System (EFIS), operating with the National Tables, it was agreed to postpone the development of such an Annex until a more clear picture of the results of the EFIS is available.

It is therefore suggested

1. That the European Common Allocation table initially be structured as indicated in Table 1 and be updated in general once a year.
2. That the addition of information about implementation of the ECA and future use of the European Allocations beyond year 2008 be considered later when the EFIS system is developed further.

Table 1 of Annex 1

New outline of the European Common Allocation Table, January 2001

Note: Content of the following randomly selected portion of ECA is provided purely for exemplary purposes and may not correspond to actual content of revised ECA

Frequency Band	RR Region 1 Allocation and relevant footnote	European Common Allocation	Utilisation	Footnote on utilisation	ERC Document	Available Standard	Notes				
862-870 MHz	FIXED MOBILE except Aeronautical Mobile BROADCASTING S5.322 S5.319 S5.323	MOBILE S5.323 EU13	Cordless Telephones	EU2		I-ETS 300 131					
			Defence systems	EU2							
			SRD in 868-870 MHz	EU2	ERC REC 70-03	EN 300 220-1					
			Social Alarms in 869.2-896.25 MHz	EU2	ERC DEC (97)06	EN 300 220-1					
			Wireless Audio in 863-865 MHz	EU2	ERC REC 70-03	EN 301 357					
			Radio microphones used on a tuning range basis in 863-865 MHz	EU2	ERC REC 70-03	I-ETS 300 422					
870-876 MHz			FIXED MOBILE except Aeronautical Mobile BROADCASTING S5.322 S5.319 S5.323	MOBILE S5.323 EU13	Digital land mobile TETRA	EU2	ERC DEC (96)04 ERC Rec T/R22-05	ETS 300 394-1	ML paired with 915-921 MHz		
					Defence systems						
876-880 MHz					FIXED MOBILE except Aeronautical Mobile BROADCASTING S5.322 S5.319 S5.323	MOBILE S5.323 EU13	Digital land mobile	EU2	ERC REC T/R25-09		ML paired with 921-926 MHz
							UIC railway systems				
							Defence systems				
880-890 MHz							FIXED MOBILE except Aeronautical Mobile BROADCASTING S5.322 S5.319 S5.323	MOBILE S5.323 EU13	EGSM	EU2	ERC DEC (97)06
	Defence systems										

Table 2 of Annex 1

Proposals for possible future additions to the European Common Allocation Table

Note: Content of the following randomly selected portion of ECA is provided purely for exemplary purposes and may not correspond to actual content of revised ECA

Frequency Band	European Common Allocation	Utilisation	Footnote on utilisation	Future use of the band		National Implementation / Phase out	Notes
				Utilisation	Year		
862-870 MHz	MOBILE S5.323 EU13	Cordless Telephones	EU2			(Implementation status ¹)	
		Defence systems	EU2			(Implementation status ¹)	
		SRD in 868-870 MHz	EU2			(Implementation status ¹)	
		Social Alarms in 869.2-896.25 MHz	EU2			(Implementation status ¹)	
		Wireless Audio in 863-865 MHz	EU2			(Implementation status ¹)	
		Radio microphones used on a tuning range basis in 863-865 MHz	EU2			(Implementation status ¹)	
870-876 MHz		Digital land mobile TETRA	EU2			(Implementation status ¹)	ML paired with 915-921 MHz
		Defence systems					
876-880 MHz		Digital land mobile	EU2			(Implementation status ¹)	ML paired with 921-926 MHz
		UIC railway systems				(Implementation status ¹)	
		Defence systems					
880-890 MHz		EGSM	EU2			(Implementation status ¹)	ML paired with 925-935 MHz
	Defence systems						

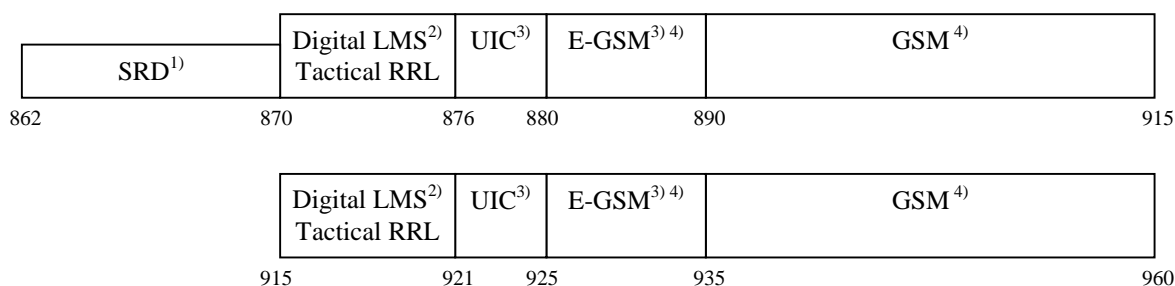
¹ Country information could contain the following general information: **Implemented**, **Not implemented**, **Limited implementation**, **Planned implementation**, **Under study**

Strategic Plan for use of the band 862-960 MHz

Future utilisation of the band 862-960 MHz should be based on the following elements:

1. The GSM service in the bands 890-915/935-960 MHz and in the bands 880-890/925-935 MHz is expected to be further developed with higher bit rates and thus both the initial as well as extension GSM bands will be fully utilised for GSM networks within the next 5 years. However possibilities for sharing between E-GSM and military tactical radio relay links will remain even in the longer term on a national basis.
2. The use of UMTS/IMT-2000 technology is only envisaged within the GSM/E-GSM bands. However, this should happen only in the long term and would highly depend on the market developments for these services and resolution of complex regulatory issues that may arise. Use of the parts of the band 806-960 MHz allocated to mobile service by UMTS/IMT-2000 is subject to Resolution 224 (WRC-2000).
3. Use of CT1, CT1+ and CT2 equipment should be phased out from the 900 MHz band in the short to medium term. ERC Decision on this matter to be developed by the WG FM. WG RR will provide guidance through ERC Recommendation or Report to Administrations on means and ways of how to implement such measures on a national level.
4. The band 862-870 MHz should be used for SRDs to the maximum extent possible. Possibilities of sharing with the military tactical radio relays should be studied. Therefore SRD MG has been asked to develop scenario for future SRD use in the band 862-870 MHz and initiate necessary compatibility studies within the SE24 on SRD sharing with tactical radio relays, as appropriate.
5. The UIC system will be introduced and given priority in the bands 876-880/921-925 MHz in most European countries within the next 5 years. However possibilities for sharing between UIC and military tactical radio relay links will remain even in the longer term on a national basis, where UIC is deployed in the limited geographical areas or in the reduced portions of UIC band. ERC Decision on UIC frequencies to be developed and agreed.
6. WG FM supports identification of the band 870-876/915-921 MHz for harmonised use by Military Tactical Radio Relay Links, on a shared basis with Digital PMR. This conclusion is pending results of sharing studies and studies of frequency requirements and real market developments of Digital PMR. All these studies should be finalised and market demand of Digital PMR in the 900 MHz range to be proven by the end of year 2002 at the latest. Until that time, Military TRRL may access this band based on national arrangements.
If by completion of the review at the end of 2002 there remain any unsolved problems of shared use of the above band, then another solution shall be sought by the WG FM, possibly including spectrum immediately below DSI Phase III range. This would anyway aim to satisfy the recognised need of 2x5 MHz of harmonised spectrum for Military TRRL below 1 GHz.
7. Remaining use of certain parts of 900 MHz band for the aeronautical radionavigation system (Eastern European RSN system) should be terminated by the year 2008, as foreseen in the ECA footnote EU13. Replacement for this system should be considered within the proposed development of overall strategic plan for future development of radionavigation services.

The above considerations would lead to the following band plan (figures on MHz scale):



Notes:

- 1) conditions for sharing with Tactical RRL should be studied
- 2) designation for Digital Land Mobile Systems to be reviewed by the end of year 2002
- 3) possible sharing with Tactical RRL as a national solution
- 4) transition to UMTS/IMT-2000 in the long term

Proposal for organisation of “ERC Consultation Forum”

During the DSI Phase III process it was requested by industry that the opportunity for industry, organisations and users to meet and discuss strategic issues of frequency requirements and market trends for current and future radio services on a neutral playing field should be continued.

The DSI phase III recommended that a “Consultation Forum” be established to complement the organised consultations and discussions during the DSI process.

Furthermore there is a need to further expand the general consultation with industry and users on strategic issues which could respond to strategic initiatives within the radiocommunications area. Consultation meetings arranged by the ERC could also support ERC and industry input to any EU initiatives on spectrum management issues. Consultation meetings arranged by the ERC should be developed in addition to the existing consultation activities such as the DSI process, CEPT conferences and event driven workshops on particular frequency management and regulatory issues.

Organised consultation meetings could be based on the following principles:

- The FM WG is responsible for the meetings which are organised by the ERO
- A meeting is arranged once a year and limited to 1 day
- The meetings should be open for all industry, organisation and users
- The meetings should in principle be free of charge

The topics and agenda for the meetings should be adopted by the FM WG after open consultation with industry, organisations and users. This consultation should mainly be carried out by means of the ERO web site.

The agenda should include the following topics:

1. An overview of the activities of the FM and SE and RR working groups as necessary for the forthcoming year
2. Consideration of strategic issues on regulation and use of the radio frequency spectrum
3. Particular issues of interest to industry raised in the open consultation process above

The adopted agenda should be publicised on the ERO web site at least 2 months prior to the meeting. Official presentations at the meetings should be limited to 10-20% of the time to allow discussions between participants in the meeting.

The Consultation Meetings should apply an open and transparent process. Thus all contributions to the meetings should be publicised on the ERO web site.

The meeting does not take decisions but after the meeting the ERO should develop and forward a report with conclusions and recommendations from the meeting to the FM WG for consideration. The report and the conclusions of the FM WG in response of any recommendations should be publicised.