

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision
of 12 March 2001
on the harmonised frequency bands
to be designated for the
Direct Mode Operation (DMO)
of the Digital Land Mobile Systems
for the Emergency Services

(ERC/DEC/(01)19)



EXPLANATORY MEMORANDUM

1 INTRODUCTION

Over the next few years, the emergency services of a number of European countries will be renewing their mobile radio networks. In order to meet operational requirements, these systems will incorporate both trunked mode and direct mode operation (TMO and DMO). Frequencies for the systems in general were identified in ERC/DEC/(96)01. The ERO questionnaire on DMO indicated that administrations considered that there was a need for harmonised DMO in the emergency services band. This ERC Decision takes the process one stage further by identifying harmonised channels for DMO to facilitate cross border roaming. Such a Decision would aid international cooperation between emergency services and keep to a minimum the amount of administrative effort required to achieve this cooperation.

2 BACKGROUND

The main background detailing the requirement of the emergency services for digital land mobile systems, and the frequency requirements of these is given in ERC/DEC/(96)01. In addition to Trunked Mode Operation (TMO), the emergency services have a need to communicate either in areas not covered by the networks, or in localised areas in relation to particular incidents as these arise. These requirements are best served by Direct Mode Operation (DMO). In order to facilitate cross border roaming whilst in this mode, it is necessary to identify some harmonised channels from within the spectrum identified in ERC/DEC/(96)01 specifically for this purpose. However, users and operators should be aware that equipment adjacent channel power may place constraints on deployment of single frequency simplex services in close proximity.

3 REQUIREMENT FOR AN ERC DECISION

The allocation or designation of a frequency band for use by a service or system under specified conditions in CEPT member countries is laid down by law, regulation or administrative action. The ERC recognises that, for digital land mobile systems for emergency services to be introduced successfully throughout Europe, manufacturers and operators must be given the confidence to make the necessary investment in these new radiocommunication systems. The ERC therefore believes that it is necessary to designate frequency bands for Direct Mode Operation (DMO) to be used by digital land mobile systems for emergency services. A commitment by CEPT member countries to implement an ERC Decision will provide a clear indication that the required frequency bands will be made available on time and on a European basis.

**ERC Decision
of 12 March 2001**

**on the harmonised frequency bands to be designated for the Direct Mode Operation (DMO)
of the Digital Land Mobile Systems for the Emergency Services**

(ERC/DEC/(01)19)

"The European Conference of Postal and Telecommunications Administrations,

considering

- a) that Administrations have the right to exercise spectrum/frequency management which may affect the number of service suppliers, in conformity with their international trade obligations and to European Community legislation as far as EU Member States are concerned;
- b) that allocation, assignment and technical co-ordination of frequencies must be done in an objective, timely, impartial, transparent and non-discriminatory manner, and should not be more burdensome than necessary under international rules, in particular, to ensure the efficient use of the frequency spectrum;
- c) that in addition to the need for trunked mode operation (TMO) interoperability, there is also a need for interoperability in the direct mode operation (DMO) between emergency services, both nationally and for cross-border operations;
- d) that ERC Decision ERC/DEC/(96)01 designates the bands 380 - 385 MHz and 390 - 395 MHz as frequency bands within which the requirements of Digital Land Mobile Systems for the emergency services be met;
- e) that in the Memorandum of Understanding (MoU) of certain European countries, the channels in the frequency bands 380.0000 - 380.1500 MHz and 390.0000 - 390.1500 MHz have been identified as common channels, i.e. channels for which coordination between administrations is not required;
- f) that in addition to the harmonised DMO channels there may be national requirements for additional DMO channels, which need to be coordinated with a neighbouring country, when necessary;
- g) that the systems proposed in this band operate in 10 kHz, 12.5 kHz or 25 kHz channel spacing.

DECIDES

1. to designate the frequency bands 380.0000 - 380.1500 MHz and 390.0000 - 390.1500 MHz for the use of Direct Mode Operation (DMO) of the Digital Land Mobile Systems for the emergency services both nationally and for cross-border operations;
2. that the centre frequencies of the DMO channels shall be derived as follows:

$$F_{CH} = \text{Band Edge} - (a \times 0.00125 \text{ MHz}) + (n \times \text{Channel Spacing MHz});$$

where:

a = constant, depending on the required channel spacing,

$a = 10$, in the case of 25 kHz channel spacing

$a = 5$, in the case of 12.5 kHz channel spacing

$a = 4$, in the case of 10 kHz channel spacing

n = channel number,

$n = 1 - 6$, in the case of 25 kHz channel spacing

$n = 1 - 12$, in the case of 12.5 kHz channel spacing

$n = 1 - 15$, in the case of 10 kHz channel spacing

Band Edge – lower edge of allocated frequency band, MHz, i.e. 380.0000 MHz and 390.0000 MHz;

3. that this Decision shall enter into force on 12 March 2001;
4. that CEPT Member Administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.”

Note:

Please check the ERO web site (www.ero.dk) for the up to date position on the implementation of this and other ERC Decisions.