

Recommendation T/R 25-04 (Stockholm 1977, revised in Vienna 1982 and Odense 1986)

**COORDINATION IN FRONTIER REGIONS OF FREQUENCIES FOR THE LAND MOBILE SERVICE
IN THE BANDS BETWEEN 862 AND 960 MHz**

Recommendation proposed by the "Radiocommunications" Working Group T/WG 3 (R)

Text of the Revised Recommendation adopted by the "Telecommunications" Commission:

"The European Conference of Postal and Telecommunications Administrations,

considering

- (a) that the Radio Regulations, as revised by the WARC, Geneva 1979, include allocations of frequency bands above 790 MHz to the mobile service, except the aeronautical mobile service,
- (b) that in all CEPT countries such allocations to the mobile service as a primary service are found in the band between 862 and 960 MHz,
- (c) that a radio system for the maritime mobile service may also operate in the above-mentioned band and that such a system could probably be used for the land mobile service,
- (d) that it is necessary to draft directives with a view to facilitating coordination in frontier areas,
- (e) that CEPT Members should be in a position to give timely guidance to their radio industry, and that it is in the interests of harmonization that such guidance should be the same in all CEPT countries,
- (f) that it is desirable, before these frequencies are brought into service, that certain factors capable of facilitating coordination in frontier areas be taken into account,
- (g) that all experience gained to date in the frequency bands below 500 MHz has shown that a large number of parameters (technical and operational) need to be standardized if wastage of frequencies in frontier areas is to be avoided,
- (h) that CEPT Members should utilize sub-bands in accordance with Recommendation T/R 75-02 E,

recommends

that in future coordination of frequencies for the land mobile service between 862 and 960 MHz in frontier areas CEPT Members should take as their guidelines the following provisions:

- 1. that, for analogue systems, separation between channels should be the same in all CEPT Member Countries,
 - 1.1. that separation should be 25 kHz,
 - 1.2. the central frequency in each channel should have the same value, taken from the series $862.0125 \text{ MHz} + n \times 25 \text{ kHz}$ ($n = 0, 1, 2, 3, \dots$); interleaved channels with a central frequency given by the series $862.025 \text{ MHz} + n \times 25 \text{ kHz}$ ($n = 0, 1, 2, 3, \dots$) may also be used but are subject to the agreement of the Administrations affected,
- 2. the same type of modulation should be used for the same frequency sub-bands in all CEPT Member Countries,
 - 2.1. amplitude modulation should be prohibited for analogue-type signals,
- 3. frequency separation for reception and transmission should be 45 MHz,
- 4. in the case of the allocation of sub-bands for specific uses, all Administrations should, as far as possible, reserve the same sub-bands for the same specific uses, in order to facilitate bilateral and multilateral coordination between Administrations,
- 5. effective radiated power (e.r.p.) and transmitting antenna equivalent heights should be as low as is compatible with covering the requisite service area and should be limited in such a manner that for analogue systems the radio field strength in a neighbouring country at a distance of 15 km from the frontier does not exceed 19 dB ($\mu\text{V/m}$) (1), referred to a receiving antenna height of 3 metres above the ground, for 50% of sites and 50% of the time,

(1) Value calculated on the basis of Recommendation T/R 25-03 E.

- 5.1. for mobile stations, the maximum e.r.p. should be 25 W.
- 5.2. where necessary, stricter limits should be agreed between Administrations, in particular for geographical areas with a high density of utilization.
6. that for analogue systems, the receiver sensitivity to be taken into account in the coordination of frequencies in frontier areas should be +6 dB referred to one microvolt (e.m.f.).
7. in frontier areas, frequencies may be shared between certain users in adjacent countries in order to make the most effective use of them. Such shared frequencies shall be frequencies assigned in a particular region to users with similar traffic conditions and using technically analogous equipment. The number of stations per channel should be coordinated between the Administrations concerned.
8. to the extent that efficient use of frequencies calls for the utilization of several base stations transmitting on different frequencies rather than a single wide-range station, multi-channel mobile stations should be preferred despite the operational difficulties to which they can give rise."