

Recommendation T/R 02-01 (Odense 1986)

**PLANNING AND COORDINATION OF LAND MOBILE (AND OTHER)
SERVICES OPERATING IN THE BAND 47-68 MHz**

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

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

"The European Conference of Postal and Telecommunications Administrations,

considering

- (a) that the WARC (Geneva 1979) in Footnote 554 of the Radio Regulations additionally allocated the band 47-68 MHz to the land mobile service on a permitted basis in the majority of CEPT countries,
- (b) that the band 47-68 MHz will in the majority of CEPT countries continue to be used for television broadcasting for the foreseeable future,
- (c) that in some CEPT countries the Plans for land mobile services in this band are at an early stage of development,
- (d) that it is desirable to achieve harmonised channel arrangements for the land mobile services in CEPT member countries,
- (e) that such arrangements will ease the problems of coordination, especially in border areas, thus minimising delays in the agreement of assignments in these geographical regions,
- (f) that wherever possible assigned frequencies should follow a uniform pattern in all CEPT countries,
- (g) that the use of the same modulation method would facilitate coordination between Administrations,
- (h) that in order to reduce the possibility of harmful interference occurring the lowest possible antenna height and the minimum possible radiated power should generally be utilised,
- (i) that it is important to examine the most recent propagation information and the minimum necessary field strength values to be protected for the required grade of service,
- (j) that additionally there is a requirement in some CEPT countries for low power services in the band 47-50 MHz,
- (k) that some CEPT countries intend to use parts of this frequency band in accordance with Radio Regulation 342 for the amateur service and therefore there is a need to harmonise these allocations within the band 50-54 MHz,

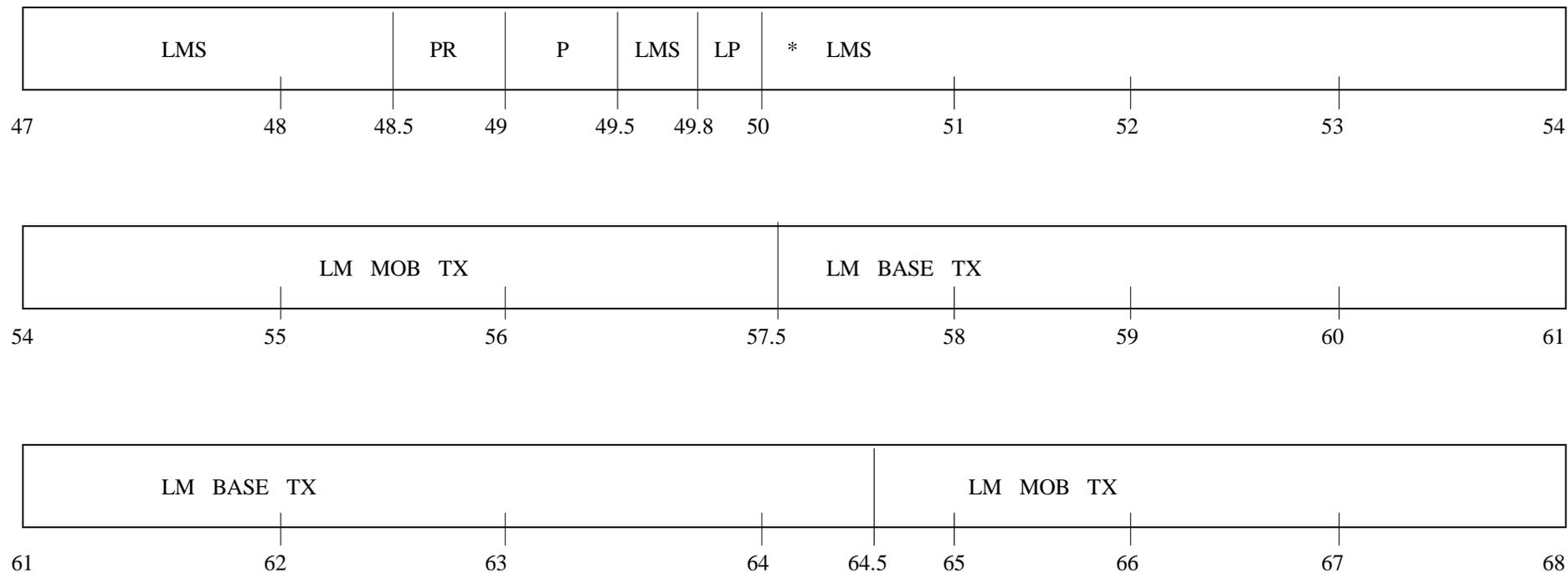
recommends

to facilitate the coordination of assignments in border regions in the band 47-68 MHz:

1. that the plan detailed in Annex A should be utilised wherever possible in CEPT member countries,
2. that the maximum channel spacing shall be 25 kHz and that, when frequency or phase modulation is used, Administrations should assign frequencies in the series:
 $47,000 \text{ MHz} + n \times 12.5 \text{ kHz}$
($n = 1, 2, 3, 4, \dots$) for 12.5 kHz channel arrangements
($n = 1, 3, 5, 7, \dots$) for 25 kHz channel arrangements,
1. that frequency or phase modulation should generally be used,
2. that except for the services in paragraphs 5. and 6. below the effective radiated power (e.r.p.) of stations of the land mobile service should whenever practicable not exceed 25 watts,
3. that the effective radiated power for on site paging applications should whenever practicable not exceed 5 watts,
4. that the effective radiated power for low power applications other than that mentioned in paragraph 5. above shall whenever practicable not exceed 0.1 watts,
5. that the coordination criteria detailed in Annex B shall be used to coordinate assignments for the land mobile service utilising frequency or phase modulation in this frequency band, between CEPT member countries,
6. that the criteria for the coordination of land mobile services using modulation methods other than frequency or phase modulation shall be the subject of a special agreement between concerned Administrations,
7. that Administrations which are in a position to provide an allocation for the amateur service in accordance with Radio Regulation 342 should authorise a lower band limit of 50 MHz and a maximum upper limit of 52 MHz. Further, the amateur service shall not cause interference to, or claim protection from, the radiocommunications services of other countries operating in accordance with the Radio Regulations.”

Annex A

Planning for the utilisation of the band 47-68 MHz



LM Land Mobile
 LMS Land Mobile, Single Frequency
 LP Low Power
 P On Site Paging
 PR Paging (Reserve)

* For the band limits for the amateur service see Recommends 9

Notes:

- The preferred arrangement for sub-band pairing is 54.0-57.5 MHz with 57.5-61.0 MHz and 61.0-64.5 MHz with 64.5-68.0 MHz
 However, the sub-band 54.0-57.5 MHz may also be paired with 61.0-64.5 MHz and the sub-band 57.5-61.0 MHz may also be paired with 64.5-68.0 MHz
- The sub-band 67.5-68.0 MHz may also be used for single frequency simplex operations between mobile stations of the land mobile service.

Annex B

1. The minimum protected field strength shall be: 13 dB ($\mu\text{V}/\text{metre}$).
2. Calculations shall be carried out using CCIR Recommendation 370-4 (Geneva 1982). Appropriate figures for 10% time and 50% of locations shall be used for the unwanted signal. For the wanted signal appropriate figures for 50% time and 50% of locations shall be used.

The change in field strength with the receiving antenna height above ground is under consideration in the CCIR.

3. The protection ratio shall be 10 dB for 12.5 kHz systems and shall be 8 dB for 25 kHz systems.