



PCC.II/REC. 60 (XXXI-18) ¹

**DIGITALIZATION OF NARROWBAND SYSTEMS OF LAND MOBILE SERVICE IN THE
FREQUENCY BANDS 136-174 MHZ AND 410-470 MHZ**

The 31 Meeting of Permanent Consultative Committee II: Radiocommunications (PCC.II),

CONSIDERING:

- a) that the number of radiocommunication stations in the land mobile service increases rapidly;
- b) that in several geographical areas the increasing demand for radio channels from the land mobile service has caused serious congestion in the frequency bands allocated to this service;
- c) that in order to alleviate the high degree of saturation of these bands, as well as that foreseen in the future, it is advisable that in the operation of the land mobile service techniques be used that make the use of the spectrum more efficient;
- d) that the digital technology applied in these systems will result in a lower channel bandwidth than that commonly used in terrestrial mobile services;
- e) that there are digital technologies available under various standards, so an agnostic approach is appropriate;
- f) that it is possible to achieve a spectrum efficiency of one voice channel in a digital system that requires a channel bandwidth of 6.25 kHz and two simultaneous voice channels in a digital system that requires a channel bandwidth of 12.5 KHz;
- g) that the frequency ranges 136-174 MHz and 430-470 MHz are allocated to several radiocommunications services which are outside the scope of this recommendation, including those referenced in Recommendation PCC.II/REC.31 (XVIII-11);

RECOGNIZING

- a) that some administrations use frequency ranges for narrowband systems, among them, 403-406 MHz, 406.1-410 MHz and 470-512 MHz.

TAKING INTO ACCOUNT:

That the Preamble of the ITU Radio Regulations stipulates that its Members endeavor to apply, as soon as possible, the latest advances in technology.

¹ PCC.II-2018-31-4673_i

RECOMMENDS:

1. That CITEL administrations that use the frequency ranges of 136-174 MHz, 410-450 MHz and 450-470 MHz, or parts of them for narrowband applications in the mobile service, consider the transition from analogue technologies to digital technologies.
2. That CITEL administrations within the framework of their own regulations and particular situations, consider the reduction of the channel bandwidth of existing and future frequency assignments of 25 kHz towards 12.5 kHz and/or 6.25 kHz, bearing in mind the same channel center.

